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AUTHOR – AUTEUR

Full Name of Author – Nom complet de l'auteur

Robert William Bright

Date of Birth – Date de naissance	Canadian Citizen – Citoyen canadien
7 October 1958	☑ Yes / Oui ☐ No / Non
Country of Birth – Lieu de naissance	**Permanent Address – Résidence fixe**
Canada	Box 115 Edson, Ab T0E 0P0

THESIS – THÈSE

Title of Thesis – Titre de la thèse

Nominalism Reconsidered

Degree for which thesis was presented Grade pour lequel cette thèse fut présentée	Year this degree conferred Année d'obtention de ce grade
MA	Fall 1985
University – Université	**Name of Supervisor – Nom du directeur de thèse**
University of Alberta	B. Linsky

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SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

PHILOSOPHY

EDMONTON, ALBERTA

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Bernard Linsky
Supervisor

Bruce Hunter

James Thy Pike

W. W. Rozeboom

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ABSTRACT

In *Universals and Scientific Realism* David Armstrong launches a major attack against Nominalism, on his way to rejecting the doctrine in favour of metaphysical Realism. This work attempts to repel those arguments, thereby demonstrating that Nominalism is both philosophically sound and preferable to Realism. The version of Nominalism which is advanced here corresponds closely to 'abstract particularism' (or simply 'particularism'), the doctrine which has been defended in modern times by G.F. Stout and Donald Williams among others.

Chapter I serves as a brief introduction to the problem of universals, and provides working definitions of Realism and Nominalism: the Realist holds that there exist objective universal entities, while the Nominalist simply denies that universals have an objective existence.

Chapter II explores the Nominalist's application of Ockham's principles of parsimony in the rejection of universals. In addition, the empiricist strand which runs through so much Nominalism is explored, and the empirical status of universals examined in some detail. The conclusion is that the doctrine which follows most naturally from the wielding of the Nominalist's most basic tools--Ockham's razor, and the empirical thrust--is particularism.

In Chapter III attention is focused on Armstrong's arguments against Nominalism and particularism. It is contended that he largely misinterprets Nominalism, and that his arguments directed specifically against particularism are ineffective. The final section of this chapter is an attempt to work out in some detail an ontology of particularized properties.

Chapter IV emphasizes the importance to the Realist program of providing an account of less than exact resemblances among ordinary particulars in various respects, and goes on to argue that solutions in terms of determinable properties, or in terms of partial identities holding among complex determinate properties, are dubious. H.H. Price's account of Resemblance Nominalism is then examined, and rejected in favour of a particularist Resemblance Nominalism. To round out the discussion of resemblance, a brief reply is presented to Russell's famous regress objection to Resemblance Nominalism.

In the concluding chapter some very brief indications are presented to the effect that such luminary historical Nominalists as Ockham, Hobbes, and Locke were particularists. Hence, as the doctrine which follows most naturally from Nominalistic reasonings, which is the most defensible form of Nominalism, and which is most in accord with the views of the classical Nominalists, particularism is the doctrine which any Realist must dispense with at the outset. Armstrong has failed to do so.

Table of Contents

Chapter	Page
I. INTRODUCTION: NOMINALISM AND REALISM	1
II. OCKHAM'S RAZOR, AND THE PECULIARITY OF UNIVERSALS	7
1. The Razor and The Empirical Thrust:	7
2. Wielding the Razor:	9
3. Qualitative and Numerical Identity:	22
4. The Peculiarity of Universals:	27
5. A Pseudo-Explanation:	39
III. NOMINALISM AND PARTICULARISM	42
1. Armstrong on Nominalism:	42
2. Two Brute Fact Analyses:	48
3. Armstrong on Particularism:	55
4. Particularized Properties:	65
IV. RESEMBLANCE	83
1. Resemblance or Identity?:	83
2. The Denial of "Properties":	89
3. The Resemblance Regress:	97
V. CONCLUSION: NOMINALISM RECONSIDERED	101
BIBLIOGRAPHY	106

I. INTRODUCTION: NOMINALISM AND REALISM

In the debate between Nominalism and Realism, the 1978 publication of David Armstrong's *Universals and Scientific Realism* marks the launch of what is perhaps the most ambitious offensive ever advanced on behalf of the Realist camp.[1] Armstrong marshalls a lengthy and impressive array of arguments against Nominalism, on his way to rejecting the doctrine in favour of metaphysical Realism. In what follows I shall be attempting to meet those arguments, and thereby travel some distance towards demonstrating that Nominalism is both philosphically sound and preferable to Realism. My strategy is to develop a theory which follows naturally from characteristically Nominalistic reasonings, and which will withstand Armstrong's battery of arguments.

Armstrong's initial characterization of the problem of universals runs as follows.:

> We start with a basic agreement [among Nominalists and Realists]: that in some minimal or pre-analytic sense there are things having certain properties and standing in certain relations. But, as Plato was the first to point out, this situation is a profoundly puzzling one, at least for philosophers. The same property can belong to different things. The same relation can relate different things. Apparently, there can be something identical in things which are not identical. Things are one at the same time as they are many. How is this possible?(I, 11)

So the problem of universals, on this account, is the problem of explaining the apparent qualitative identity of numerically distinct particulars. The metaphysical Realist's response to this problem is to analyse all qualitative identity in terms of numerical identity. If distinct concrete particulars are qualitatively identical in some respect--i.e., if they have exactly the same property or relation--then there is some one thing which is numerically identical in them, or which underlies them. What is numerically identical in such distinct particulars are ***universals***, entities which are posited in order to explain how various distinct particulars may have some or all of their characteristics in common. Briefly, on the Realist's account particulars have the properties which they do because they partake of, or are instantiations of, various universals. Objects which have a property or properties in common are said to be

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[1]D.M. Armstrong, *Universals and Scientific Realism* (Cambridge University Press, 1978), 2 volumes. References to Armstrong's book are followed by a volume and page number in brackets.

instances of the same universal(s).

The Realist supposes that universals are *objectively real*. 'Objective' has here a somewhat broader sense than it does in its usual philosophic occurences. In what follows, the term 'objective' as applied to something will be taken to mean not only that the thing has its being independently of thought and language, but also that it is not reducible to entities of a different type. Hence, not only does the Realist suppose that universals exist independently of languages and minds, but also that they are a fundamental, irreducible part of the "furniture of the universe". (Note that in this sense of 'objective', a universal which is complex--that is resolvable into further universals--is quite objective.)

Though the Realist supposes universals to have an objective existence, however, such things cannot be supposed to exist in precisely the same fashion that ordinary particulars do. For one thing, it would make little sense to suppose that universals have a single definite spatio-temporal location. A universal cannot be said to be located where any one of its particular instances is located; for then the Realist would be saddled with the problem of explaining how that universal could inform its other instances at various other locations. Thus the Realist must at least hold that a given universal is scattered throughout space-time at the points where its instances occur. For reasons which will become clear in the next chapter, many Realists will go farther than this and assert that universals do not exist in space-time at all.

Hence we may distinguish two broad categories of Realists. One group--Immanent Realists--hold that universals are "in" their instances, and are thus located in space-time at the points where their instances occur. This view has the consequence that qualitatively identical property instances are really numerically identical, even though they have distinct spatio-temporal locations. The other group--Transcendent Realists--hold that universals are not located in space-time at all, but rather belong to some transcendent realm of being. On this view qualitatively identical property instances are numerically distinct, but they may be qualitatively identical only in virtue of being instances of a single transcendent universal which "supports" them. Armstrong is a contemporary example of an Immanent Realist. Bertrand

Russell, at least in the earlier stages of his career, was a Transcendent Realist.[2]

In what follows I shall be arguing mainly against Armstrong's Immanent Realism (though many of the arguments apply to Transcendent Realism as well). But I don't think that this focus on Immanent Realism should be viewed as problematic insofar as the discussion here purports to provide a general defense of Nominalism. Armstrong himself provides us with a very capable critique of Transcendent Realism (see I, Ch. 7), and hence there is no need to duplicate his work here. More importantly, if Armstrong's anti-Nominalist attacks can be repelled and the doctrine thereby demonstrated to be sound, this soundness will carry as much weight against Transcendent Realism as against the Immanent variety. For demonstrating the soundness of Nominalism would show that universals, whether transcendent or immanent, do not *necessarily* exist. If universals do not have a necessary existence, then the Nominalist is inclined to hold that they do not exist period. The Realist claims that the necessity for universals' objectively existing can be established *a priori*; if this is not the case, then their objective existence cannot be demonstrated at all.

We have not yet defined Nominalism. If the Realist posits universals as a means of solving the problem of qualitative identity, what is the Nominalist's position? The term 'Nominalism' has met with such a variety of uses in contemporary philosophy that we must be extremely careful here in our characterization, so as not to beg any questions on behalf of either the Nominalist or the Realist. In Chapter II we will have occasion to examine briefly some contemporary interpretations of Nominalism (in particular, doctrines which associate Nominalism and Realism with the debate over whether predicates refer, and those which associate them with the rejection or acceptance of classes, respectively). But I reject these contemporary interpretations as an adequate characterization of Nominalism, simply because they do not fit well with historical usage. To limit ourselves by adopting a characterization of

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[2]See *The Problems of Philosophy* (O.U.P. paperback edition, 1967), pp. 52-7. Russell adopts a terminology whereby ordinary particulars exist, but universals *subsist*. This manner of speaking may be an unfortunate one for the Realist, however, in suggesting that universals have a bare existence which is somehow less than that of particulars.

Nominalism which does not correspond to the positions for which the name was invented, would be to unduly influence the debate between the Nominalist and the Realist before it even gets rolling.

On the basis of linguistic considerations alone, it might be supposed that Nominalism is the view that things have the nature which they do solely in virtue of the *names* which we apply to them. With regard to this view, A.D. Woozley writes:

> In its extreme form, that there is nothing common to a class of particulars called by the same name other than that they *are* called by the same name, nominalism is so clearly untenable that it may be doubted whether anybody has actually tried to hold it.[3]

Obviously, then, we will do well to avoid this extreme characterization of Nominalism; the Realist would have far too easy a time of things with "so clearly untenable" a position.

What we shall say, instead, is that Nominalism is simply the doctrine which denies that universals have an objective existence. If universals "exist" at all, on the Nominalist's view, then either they have a mind- or language-dependent existence, or else they are reducible to some other, non-universal type of entity. In thus placing Nominalism in direct opposition to Realism, we should manage to avoid charges of question-begging on either side. In addition, I think that this characterization accords well with historical usage, and agrees with Armstrong's formulation: "The fundamental contention of Nominalism is that *all things that exist are only particulars*."(I, 12; the emphasis is his.)

The brand of Nominalism to be forwarded here corresponds closely to the doctrine which, in contemporary jargon, goes by the name of 'abstract particularism', the position defended by G.F. Stout and Donald Williams among others.[4] I shall follow Armstrong in

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[3]"Universals" in *The Encyclopedia of Philosophy* (New York: Macmillan, Inc., 1967), Volume 8, p. 203.

[4]See Stout, "The Nature of Universals and Propositions", reprinted in Charles Landesman, ed., *The Problem of Universals* (New York: Basic Books, Inc., 1971), pp. 153-66; and Williams, "On The Elements of Being: I" in *The Review of Metaphysics* 25 (1953), pp. 3-18. Another relevant piece of Stout's work is his contribution to the symposium "Are the Characteristics of Particular Things Universal or Particular?" with G.E. Moore, which is also reprinted in Landesman, pp. 167-83. Williams' article is an attempt to construct an entire ontology with particular property instances (he calls them "tropes") as the fundamental elements. The second half of the article appears in the following issue, pp. 171-92.

referring to the doctrine simply as 'particularism'. Briefly, particularism is the doctrine which states that the characteristics or qualities which a thing has are quite objective, but that they are also quite particular. In asserting that the properties which things have are particular--or, which is the same thing, denying that properties are universals--particularism is thus a form of Nominalism. It is unfortunate that many contemporary commentators have not recognized this fact. Keith Campbell, in an otherwise excellent article, commits the error in question when he writes that "Nominalism...is, of course, incompatible with any Bundle theory [i.e., the theory that ordinary particulars are nothing but bundles of qualities]," and then goes on to explain how a particularist bundle theory avoids the pitfalls of bundle theories where properties are viewed as universals.[5] What Campbell has missed is the fact that, in denying that properties are universals, particularism *is* a form of Nominalism. The particularist ontology which Campbell defends is thoroughly Nominalistic, and roughly in accord with the position which I will be advancing. Far from standing apart from Nominalism, in the concluding chapter below some brief suggestions will be presented to the effect that particularism was the position adhered to by such notable Nominalists as Ockham, Hobbes, and Locke.

A final note: The issues of concern in what follows are ones of, in Williams' words, "first philosophy" or "analytic ontology", the study of "examining the traits necessary to whatever is, in this or any other possible world."[6] But this description is perhaps misleading. It

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[5]"The Metaphysic of Abstract Particulars" in *Midwest Studies in Philosophy*, Volume VI, p. 482. Campbell apparently limits Nominalism to the extreme characterization which we rejected above. He writes:

> The problem is: what ontological structure, what array of real entities, is necessary and sufficient to account for the likenesses among different objects which ground the use on different occasions of the same general term, 'round', 'square', 'blue', 'black', or whatever....Nominalism holds that roundness and squareness are no more than shadows cast by the human activity of classifying together, and applying the same description to, sundry distinct particular objects....The objection to Nominalism is its consequence that if there were no human race (or other living things), nothing would be like anything else."(Ibid., p. 483)

This, of course, amounts to accusing the Nominalist of asserting that, in Woozley's words, "there is nothing common to a class of particulars called by the same name other than that they *are* called by the same name." Does Campbell really know of a philosopher, either historical or contemporary, who was willing to call him or herself a Nominalist, and who has held such a position?

[6]"On The Elements of Being: I", p. 3.

seems to suggest that the only principles appropriate to the discussion of first philosophy are necessary ones, and surely this is not the case. (If either the Nominalist or the Realist has necessary truth on his side, why has the debate between them lasted as long as it has?) The Nominalist does not assert that the existence of universals is logically impossible; he only means to deny that their existence is logically necessary. As to the question of whether to adopt the Nominalist or Realist world view, this question will not be answered by an appeal to necessary truths, but rather by a careful weighing of the results of bringing to bear on the issues every relevant technique of philosophical analysis. When the results are finally in I think that the scales are tipped clearly in favour of Nominalism.

II. OCKHAM'S RAZOR, AND THE PECULIARITY OF UNIVERSALS

1. The Razor and The Empirical Thrust:

Our first task is to inquire into the reasons behind the Nominalist's rejection of universals. The Nominalist's most fundamental intuitions on the subject may I think be divided into two categories. One set of these intuitions is captured to a greater or lesser extent in various formulations of the principle which has come to be known as 'Ockham's razor', while the other set of intuitions is perhaps best characterized by saying that, given the Nominalist's empiricist tendencies, he finds the peculiar nature of the Realist's posits repugnant.

According to Armand Maurer, the French philosopher Condillac went so far as to refer to the the Ockhamist principle as 'le rasoir des nominaux'.[7] As Maurer notes, the razor predates Ockham by a considerable period, and may be traced back as far as Aristotle's *Physics*, where he "expresses his preference for simple explanations of nature to more complicated ones." Odo of Rigaud, a Franciscan master, formulated the principle as 'It is useless to explain by several things what can be explained by one' around 1250, some thirty-five years before Ockham was born. Questions of origin aside, however, there is no doubt that Ockham himself relied heavily on the razor in philosophical argument; some of his own formulations include 'A plurality should never be posited without necessity' and 'It is vain to do with more what can be done with fewer.' Nowdays, of course, the razor is commonly formulated as 'Entities are not to be multiplied without necessity,' or something similar.[8]

The basic intuition which underlies all of these incarnations of Ockham's razor, through two thousand years of philosophy, is merely Aristotle's general methodological point that simple explanations of nature are to be preferred to more complex ones. In terms of

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[7]Armand A. Maurer, "Method in Ockham's Nominalism" in *The Monist*, Volume 61, Number 3, p. 426.

[8]This contemporary formulation of the principle is borrowed from Ernest A. Moody, "William of Ockham" in *The Encyclopedia of Philosophy* (Macmillan, 1967), Volume 8, p. 307. Russell provides the following version in the Foreword to the German translation of *The Problems of Philosophy* (1926), translated and included as an Appendix to the English edition cited above: "The number of entities is not to be multiplied beyond necessity."

ontology, the various formulations of Ockham's razor work this methodological point up into a principle of conservativism in ontic committment: if nothing of a theoretical advantage is to be gained by positing an entity, then that entity ought not to be posited. (More precisely, we should say that Ockham's principle of parsimony enjoins us to purge from our ontology *kinds* of entities which play no explanatory role; philosophers are not, as a rule, given to bickering over the theoretical addition of one object more or less to the world, unless that object happens to be of a different sort from those already admitted into the scheme of things.) In what follows we will do well to keep in mind this dual aspect of the razor. First, there is the underlying methodological point that simple explanations are to be preferred to more complex ones; and secondly, there is the ontological point that fewer (kinds of) entities are to be preferred to more. In this respect, Ockham's razor is perhaps better characterized as a two-edged sword: one side of the blade enforces explanatory parsimony, the other ontic parsimony. Both edges are employed by the Nominalist in rejecting universals.

There is, in addition to its reliance on principles of economy, a decidedly empiricist bent to the Nominalist program. That Armstrong manages to do a creditable job of wedding a form of empiricism with metaphysical Realism in his own theory, attests to the sharpness of his critique of Nominalism. For the spirit of empiricism has generally been associated with the latter doctrine, and not with the former.:

> The nominalist's individuals are of a kind which can be confronted or in the least, make up such confrontable or encounterable individuals. They can, so to speak, put in an appearance. Encounterability by the mind's eye is not generally counted in the spirit of nominalism.
>
> ...In summary, nominalism has traditionally moved along two tracks. First, there are not two sorts of things, universals and particulars which bear an irreducible relation to one another. Second, the empirical thrust, individuals are in one way or another held to be encounterable objects. A philosopher who moves along either track designates himself as nominalistically inclined.[9]

We will be spending the remainder of this chapter investigating in some detail the Nominalist's denial of universals. The section immediately following examines the application of Ockham's razor to the problem of universals. Following that, an argument will be provided to the effect

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[9]Ruth Barcan Marcus, "Nominalism and the Substitutional Quantifier" in *The Monist*, Volume 61, Number 3 (July 1978), p. 352.

that the notion of qualitative identity (as distinct from numerical identity) is a supportable one, and thus that applying the razor in slicing away universals does not leave the Nominalist with an insoluble problem. In Section 4 we turn our attention to the peculiar nature of the Realist's posits, and examine how the "empirical thrust" of Nominalism compliments its principles of parsimony in rejecting universals. The final section suggests briefly that the Realist's answer to the problem of universals as it was formulated in Chapter I is a reply to a pseudo-problem.

2. Wielding the Razor:

In the first place we must take notice of the fact that Armstrong is as much an advocate of Ockham's razor as Nominalists are. He explicitly cites the razor in a number of arguments in his book (see, e.g., I, 130 and II, 92), and implicitly appeals to it and the intuitions which underwrite it at almost every turn. At one point he even provides us with a methodological principle, the attachments of which to the razor are obvious: "In general, a good philosophical methodology for an Empiricist seems to be this: be rather hospitable to claims about logical possibility, reserve one's scepticism for claims about what actually exists."(II, 14) So Ockham's razor, and the intuitions which underlie it, are not a point of contention between Armstrong and the Nominalist. Quite to the contrary, the two parties are completely in accord on this issue. The differences arise only because Armstrong is unable to find a Nominalistic path out of the tangled ontology of Realism. He makes this point abundantly clear on numerous occasions (with such statements as "we have to admit universals"; I, 89). Indeed, the very structure of Armstrong's book evidences his committment to explanatory and ontic simplicity; he turns to a positive discussion of Realism *only* after raining down the barrage of arguments which show, he thinks, that Nominalism is an unworkable thesis.

Before turning to those arguments in Chapter III, we will spend some time "thinking through" the Nominalist's reasons for rejecting universals. The point in doing this is two-fold.

First, it will be instructive to get clear on just how Nominalism employs its principles of explanatory and ontic parsimony; tracing our way through the reasoning involved will provide the opportunity to sharpen the debate between the Nominalist and the Realist. But secondly, and more importantly, our consideration of how the Nominalist employs his most basic tools in the rejection of universals will shed considerable light on the sort of positive doctrine that he is likely to adopt as the result of that rejection. It is my contention that the doctrine which follows naturally is a particularist one, and one which does not fall prey to Armstrong's anti-Nominalist critique.

In the discussion to follow, hypotheses that certain particulars do or do not have identical properties in common must be understood to apply to determinate properties, and not to determinables. This is clear in any case with regard to Armstrong's version of Realism, since he doesn't believe that there are determinable properties. All objective properties are in his view precisely determinate, so if two or more particulars have a property in common, then it must be a determinate one. In Chapter IV, when we focus our attention explicitly on resemblances, it will similarly be argued on behalf of the Nominalist that all properties are absolutely determinate. But apart from that argument, there is a reason to limit our discussion here to determinate properties. If it can be shown that universals are not required to explain why particulars may have precisely determinate characteristics in common, then the Nominalist will have little difficulty in dealing with determinables. Two particulars which have a precisely determinate property in common resemble exactly in some respect. To say that universals are not required in explaining how particulars may have a determinate property in common, is simply to say that universals are not required in explaining the exact resemblance of property instances. If this is true, then universals are presumably not required in explaining the less than exact resemblances of property instances which fall under the same determinable. Hence the Nominalist may take such resemblances, which do not presuppose universals, to be constituitive of resemblance classes, and determinable properties can simply be identified with these classes.

In plainer language, to say that a particular possesses the determinable property blue is simply to say that it is a member of a class of things which resemble in virtue of the determinate properties which they possess. If such resemblances are not required to be underwritten by universals--and to show this, it is enough to show that the limiting case of exact resemblance does not demand universals--then the Nominalist has at hand a complete account of determinables. In this sense, determinable properties present a problem for the Nominalist only if determinate ones do, and hence we might just as well avail ourselves of the simplification of limiting the discussion at this point to determinates, even if the arguments to be presented against determinables at the beginning of Chapter IV are of no consequence whatever.

Universals, then, are posited by the Realist in order to explain why two or more objects may have precisely determinate properties in common. That an object has the nature which it does is explained by noting that it is an instance of various universals. That objects may have a partially or wholly common nature is attributed to their being instances of the same universal or universals.

There is a very important feature of the Realist's explanation which we must take notice of here. It is simply this: the analysis of sameness of nature proceeds by way of an analysis of things' natures *simpliciter*. In other words, ordinary particulars do not have the nature which they do because that nature is shared by something else. Rather, the fact that natures may be shared is dependent upon the natures of the things themselves, upon the fact that the things have their nature in virtue of being instances of (some of) the same universals. Thus universals are first and foremost an explanation of why things have the character that they do, and only secondarily an explanation of why things share characteristics. This feature of universals, I think, can be used to show that their postulation is otiose, and hence in contravention of Ockham's razor.

(i) We may begin with a simple thought experiment. It is a striking fact about our world that very few of the many objects which we encounter have precisely determinate

properties in common. Indeed, given the large degree of qualitative diversity of which we are immediately aware, it would not be totally implausible to suggest that *no* two objects have any determinate characteristics in common. A philosopher who insisted that this was the case would, of course, be engaging in an intolerable bit of *a priori* theorizing. But it seems at least to be within the realm of physical possibility, for example, that no two objects are precisely the same shade of blue, and that differences in reflected wavelength could be detected by finer measuring instruments than we have available to us at the moment.

If we consider, say, the charge properties of subatomic particles such as electrons, then it seems much less plausible to suggest that no two objects have a determinate property in common; for according to our best scientific theories, every electron has exactly the same charge. But even here the suggestion is well within the limits of physical possibility. It might be, for example, that the theories in question would explain the behaviour of the world just as well if the charge *e* was construed as the average charge of an electron, so that each electron's charge actually varied by a miniscule amount. In any case, I have no desire to argue that *in fact* no objects share any determinate properties. I only wish to maintain that this is a logical and epistemic possibility.

Let us suppose, then, that there really are no two objects in the universe that are exactly alike in any respect. In this case, the Realist's approach to the problem of universals wouldn't get off the ground. More precisely, there wouldn't be a problem of universals, insofar as the problem is understood to be one of explaining how particulars may share determinate properties. But since, as we recently noticed, universals are in the first place an explanation of why things have the nature which they do, and only in the second place an explanation of shared natures, it could still be held that universals performed the former function, even though the latter has been ruled out by hypothesis.

We will all admit (at a pre-theoretical level, at least) that there are things in the world with properties; that things have a nature, and that their nature is objective, seems undeniable. But if every property was in fact unique, absolutely nothing of a theoretical advantage would

be gained by saying that things have their unique properties because they each fall under (participate in / are instantiations of) their own unique set of universals. This can be seen by noting that to postulate a universal as an explanation of why a particular *a* has a certain property invites the further question: why does the universal have the property of lending to *a* just this character. If second-order universals are posited to this end, the question only springs up again with regard to them, and a glaringly vicious regress is off and running.

Hence, if universals amount to nothing more than an explanation of things' natures *simpliciter*, then they are no improvement at all on our understanding of the world. Under circumstances where particulars have shared properties, universals at least play a *prima facie* simplifying role in reducing the number of unexplained entities; where before there were two or more property instances to be explained, now there is a single universal. But if no properties are in fact shared, the postulation of universals leads quickly to an infinite regress which merely clutters ontology without increasing our understanding of the world one iota. Explanatory and ontic parsimony argue for cutting off this regress at its roots, before it has a chance to get going. Since exactly the same question which was voiced with regard to the nature of particulars keeps springing up with regard to the nature of universals, the appropriate thing to do here, on the Nominalist's view, is to deny the appropriateness of the question in the first place.

To put the matter another way: it seems that the Realist could stop the vicious regress in question only arbitrarily, by asserting that his *n*th-order universals have the nature which they do simply because they do--it is just a brute, inexplicable fact that these *n*th-order entities are the way they are. But if we must accept this sort of explanation in any case, why not accept it at the outset, and save ourselves the trouble of intermediary "explanations" and an inflated ontology? Why not simply accept that particulars are the way they are as one of the brute, inexplicable facts of the world? (Of course, the physicist can give a better answer than this to the question of why a thing, say, reflects just these wavelengths of light. His answer will be voiced in terms of the atomic structure of the object or some such. But ultimately he is no better position. For either he works his way along an infinite regress of more minute and

detailed explanations of why a thing has a certain property; or he finally reaches a bedrock explanation and must admit that the object in question just has these bedrock properties because it does. In neither case will the postulation of universals help him.)

(ii) So at any rate, if no two things in the universe actually share a determinate property, then the postulation of universals would only serve to muddy our ontology without providing any sort of explanatory benefit. What if it turns out, as seems likely, that some things really do have determinate properties in common? Let's modify our example slightly, and suppose that there are just two things in the universe which have an identical property; there are two distinct objects, *a* and *b*, which are an identical shade of blue. Will the Realist say that in this case at least one universal is required, one which will exlain why *a* and *b* are exactly the same shade of blue? Of course, it can't be the case that universals are required to explain why all the other objects in the universe are the way they are; as with the previous example, opting for universals in the case of *c, d, e,* &c., would lead to the familiar regress, which could be cut off only arbitrarily and at the expense of explanatory and ontic simplicity. But if we must accept that *c, d, e,* &c., have the nature which they do as a brute fact, explanatory parsimony argues for accepting that *a* and *b* are the way they are as a brute fact. Nothing more is required to explain why each has its own particular shade of blue, notwithstanding the fact that there happens to be another thing with that particular shade. And if we don't require recourse to universals to explain why each has its particular shade of blue, then what is added by saying that they share their colour in virtue of being instantiations of a single universal?[10]

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[10] Michael Devitt advances against Armstrong a "brute fact" argument substantially similar to this one in "'Ostrich Nominalism' or 'Mirage Realism'?", *Pacific Philosophical Quarterly* 61 (1980), pp. 433-9. Rather than expressing the argument in "old-time" metaphysical parlance, however, Devitt relies on Quinean paraphrase: '*a* and *b* have the same property (are of the same type), *F*-ness' may be paraphrased as '*a* and *b* are both *F*', and finally as simply '*a* is *F*' and '*b* is *F*'. Where '*F*' happens to be an irreducible physical predicate, Devitt concludes that "we have nothing to say about what makes *a F*, it just *is F*; that is a basic and inexplicable fact about the universe."(p. 436)

Devitt's article is a defense of Quine against Armstrong's charge that Quine is an Ostrich Nominalist (i.e., the sort of Nominalist who simply refuses to give an account of types). Armstrong replies to Devitt in the same issue, and Quine in turn presents a brief response to Armstrong's reply. We will have occasion to examine Devitt's views in more detail in Chapter III.

Perhaps the point may be expressed in a somewhat more perspicuous fashion as follows. Object *c* is one of the objects in the universe which shares no determinate characteristics, including colour characteristics, with any other object. We have seen that, on pain of a vicious regress, we must accept that *c* is the colour that it is as a brute fact; *c* just is the colour that it is, and there is nothing more to be explained (aside from the physicist's reductivist account, of course). But if this "explanation" is adequate with respect to *c*, then it ought to be good enough with respect to *a* as well: *a* just is the colour that it is, and there is nothing more to be said about the matter. Similarly, there is every reason to accept that *b* has the colour which it does just because it does. Now, we have explained everything there is to be explained about the colour of *c*; haven't we also given a complete explanation of the colour of *a*, and of *b*? What more can be said? "Yes," the Realist will reply, "but *a* and *b* are the *same* color." So what? If we have just given as complete an explanation as possible of why *c* is the colour that it is, then we have also given as complete an explanation as possible of the colour of *a* (and of *b*). The explanation didn't rely on universals in the former case; why should it in the latter?

Lest it be imagined that I am advancing here a version of Ostrich Nominalism, the doctrine which refuses to give an account of types, the reader may be reminded that resemblances have not yet been introduced into the account. The Nominalist will certainly hold that *a* and *b* resemble each other. The question here is whether their resemblance must be accounted for in terms of a universal which causes them to have the nature which they do. Supposing that universals are required to explain *c*'s nature only compounds ontology without providing explanatory benefit. If this is so, then why not accept that *a* and *b* simply do have the nature which they do, and accept the further consequence that they resemble without thereby being instances of a universal.

There is one more way of putting the matter, which may convince the sceptical reader. That *c* has the properties which it does must be taken as given, and hence we may take it as given that *a* and *b* have the properties which they do. Now, Armstrong defends the principle

that "what causes what depends solely upon the properties (including relational properties) of the cause and the effect."(I, 22) In other words, an account of the causal efficacy of a thing is exhausted by an account of its properties. Since we have accounted for all of *c*'s properties, we have presumably also provided an exhaustive account of *c*'s causal efficacy. (Once again, we are ignoring the physicist's reductive account of why a thing has the causal powers which it does. What this amounts to here is saying that *c* has the causal powers which it does just because it does; hardly an informative answer, but one which the physicist too will eventually be stuck with if he is unable to provide an unending stream of reductive analyses.) Haven't we also provided an exhaustive account of the causal powers of *a* and *b*? And if so, what more could possibly be meant by insisting that *a*'s colour property is a universal, since it is shared by *b*? In addition to the principle cited above, Armstrong also defends at some length the methodological principle--really a variation of Ockham's razor--that entities which do not have causal efficacy ought not to be postulated (see especially I, 128-32). But since, by hypothesis, our brute fact account of the properties of *a* and *b* is also an exhaustive account of their causal efficacy, there would seem to be no role whatever for universality to play in the analysis. Under these circumstances, Armstrong's own principle forces us to reject universals. In his words, "Why should our ontology find a place for such a drone?"(I, 131)

(iii) In the example of the last few paragraphs, we supposed that there were only two things in the universe which had an identical property. The arguments would apply just as well, however, if very many objects shared determinate characteristics. In fact, if only one object in the universe had one unique property, then this would not constitute a difference in kind from the previous example, but only a difference in degree. For we would still be forced to hold that the object which had that single unique property had it as a brute fact, and hence we would be forced to accept that every other property was had by its object as a brute fact, and etc.

It is important to get clear on just what the previous arguments have shown. What they show, I think, is that as long as there is a single thing in the world with a unique property, the principles of explanatory and ontic parsimony demand that we eschew the postulation of

universals. But this demand is not a purely logical one. It is still open to the Realist to reject Ockham's razor and the intuitions which underwrite it. For these are principles of philosophical methodology; widely accepted, yes, but they are not logical or necessary truths. Hence the arguments above cannot show that the postulation of universals is logically incoherent; universals remain a logical possibility, though their existence is dubious. Insofar as we *do* take the principles of explanatory and ontic simplicity seriously, it does seem to (logically) follow that, if there is just one thing with a unique property, we must reject universals.

What if nothing in the universe has a unique property? Suppose that every property of every object is shared by at least one other object? Does this make a difference to our acceptance or rejection of universals? It might be thought that it does; for the arguments to this point have all relied on the fact that, *given* the existence of at least one thing with a unique property, we must accept on pain of a vicious regress that everything simply has the properties which it does. I think this view is mistaken, however. In (i) above we noticed that the only way for the Realist to cut off the explanatory regress which followed from positing universals was to more-or-less arbitrarily assert that his *n*th-order universals simply have the character which they do as a brute fact. This is no less the case when every property of every thing is shared by some other thing; the problem in question is not limited to situations where nothing shares a property with any other.

Consider: Universals are meant to explain why particulars have the nature which they do. That particulars may have part or all of their nature in common is attributed to their falling under the same universal(s). What then, explains the nature of the universals in question? Just what is it about universals, as objective entities, such that they can "give character" to particulars. It cannot be held that universals don't have a nature, for they manifestly do. The Realist supposes that there is a different universal which accounts for every property that a particular may possess. So our question may be re-phrased as: what is it about *this* universal--say, the universal which accounts for why *a* and *b* have the shade of blue which they do--such that its instances are qualitatively different from the instances of, say, the universal

which is meant to account for *c*'s colour? There is no difference without a difference, so to speak. So what constitutes (explains / accounts for / underwrites) the difference between this universal and that one? Surely it can't be the bare numerical difference between the two.

The Realist apparently has two options here. First, he can posit another entity (a second-order universal) to account for the nature of the original posit, and then a third-order one to account for the second-order one, and so on. The explanatory and ontic excesses of this move are obvious at a glance. Even without these excesses, however, the positing of higher-order universals would seem to be fraught with difficulties. We may mention only one such difficulty here: there does not seem to be any very good explanation at hand of the uniqueness of universals. On the Realist's view ordinary particulars may in theory have wholly common natures. Two such particulars would be either barely, numerically distinct, or else they would derive their distinctness from different spatio-temporal locations. It would be impossible to maintain, however, that two or more universals could have identical natures. Let's call the universal which account's for *a*'s shade of blue *u*. Now suppose that there is another universal, *v*, which has precisely the same nature as *u*. Mightn't it be the case, then, that *b*'s colour is accounted for by *v*, and not by *u* at all? Under these circumstances the Realist's case would simply sink into the quagmire; for the whole point of positing universals in the first place was to attribute *a* and *b*'s identical shades to their being instances of numerically the same universal. Hence it can't be the case that two or more universals can have precisely the same nature. But if the Realist wishes to hold that a universal's nature must be accounted for by positing higher-order universals, how is this fact to be explained? Obviously, first-order universals can instantiate more than one thing; indeed, that is the *whole* reason for postulating them. It follows that it is possible, in principle, at least, for all of the same first-order universals to instantiate two or more particulars (i.e., for two or more particulars to have wholly identical natures). But this is not the case for second-, third-, &c. order universals. What's more, it is *necessarily* not the case. Why not?

The other option open to the Realist in explaining the nature of universals is to cut off the impending regress by holding that universals (either first-order, or some higher order) just do have the character which they do. This is the route which Armstrong takes.:

> [Suppose] that every universal is wholly determined by its properties. This view leads to an infinite regress, because the higher-order properties would then require properties of still higher order, and so on. The regress appears to be vicious: we never reach properties which actually determine the nature of any universal....
>
> It seems, then, that at some point in the regress of higher-order properties we must reach properties which do not themselves have properties but simply are their own unique selves.(II, 139)

In other words, we must accept that at least some universals have the nature which they do as a brute fact about the world. Armstrong actually draws the line at second-order properties and relations, while remaning non-committal with regard to third-order properties. (His reasons for drawing the line where he does are not pertinent to our discussion here.) Notice that Armstrong's account is not subject to the difficulty which was raised in the previous paragraph. A first-order universal may have properties and relations which are shared by other universals. But as long as these shared features do not exhaust the universal's nature, it should be possible to hold that the rest of that nature is unique, and hence that no two universals have precisely the same nature. (A problem still remains, however, in explaining why that part of a universal's nature which is not shared by any other universal is necessarily unique.)

So Armstrong accepts the thesis that second-order universals have the nature which they do as a brute fact. And indeed, as we have just seen, he must apparently accept that at least part of the nature of *every* universal is simply given (i.e., not accountable for in terms of higher-order universals); only so can he plausibly maintain that the part of the universal's nature in question is unique, and so avoid the problem of duplicate universals. It seems, then, that we may ask the same old question here: if we must accept that universals have the nature which they do just because they do, why not accept that explanation with regard to particulars in the first place, thereby avoiding explanatory and ontological excesses?

The Realist will certainly object that there is an important difference between taking particulars' natures as given, and taking at least part of the nature of every universal as given.

The difference is simply that the part of a universal's nature which must be accepted as a brute fact is unique; it is shared by no other thing in the universe. This is not the case with particulars, however; since we are supposing that every property of every object is shared by at least one other object, there is no part of a particular's nature which is unique. I don't think that this objection substantially alters the conclusion which I am pushing for. But it does mark an important turning point in the discussion, which we must take notice of.

Recall that the final argument in (ii) above relied on the fact that *c*'s properties were unique. The argument ran as follows.:

(1) Given the uniqueness of *c*'s properties, explanatory parsimony forces us to accept that it has those properties as a brute fact.

(2) If we must accept this "explanation" with regard to *c*, then there is no reason to reject it with regard to *a* and *b*.

(3) An account of a thing's properties exhausts an account of its causal powers.(Armstrong)

(4) Hence, we have at hand a complete account of the causal powers of *c*, and of *a* and *b*.

(5) Since we already have at hand a complete account of the causal powers of the objects in question, there is no room for the supposed universality of properties to play a causal role.

(6) If a postulated entity does not play a causal role in our ontology, then we ought not to posit that entity.(also Armstrong's)

(7) Hence, we ought to refrain from positing universals.

This rather tedious way of expressing what is really a very simple argument has the virtue of making clear what the Realist's objection above amounts to. The problem is simply this: premisses (1) and (2) of the argument no longer hold. Since by hypothesis *c*'s properties are no longer unique, it is not the case that explanatory parsimony *forces* us to accept those properties as a brute fact, and therefore it is not the case that we must accept that explanation with regard to the properties of everything else as well. Hence the Realist may object that, since all the properties in question are in fact shared, we ought not to accept the "brute fact" explanation with regard to them, but rather postulate universals and accept the explanation with regard to them instead.

The reason that I don't think this objection carries much weight is that the conclusion of the argument in (7) will follow from much weaker versions of (1) and (2). Our discussion in (i) and (ii) above had the virtue of making it clear that it makes perfectly good sense to speak of a particular's having its properties as a brute fact. To put the matter another way, if the Realist objects that the brute fact analysis should be applied to universals and not properties, since the former are unique whereas the latter are not, then the Nominalist may reply that it is certainly logically possible that an object may have a property or properties which are unique, and hence it can't be the case that universals are necessarily required in the explicaton of things' natures. (I would argue the stronger thesis that it is a physical possibility that things possess unique properties, that some or all things in the universe *may* in fact not share one or more of their properties with anything else; to maintain otherwise would be as intolerable as maintaining that no two objects in fact share a property. But nothing here depends upon this.)

The Realist might further object that even if it is logically possible for a thing to possess a unique property, it is necessarily the case that universals are unique. But we have already noticed that this necessary uniqueness is puzzling; it seems to follow more from the demands of the theory than from the nature of universals themselves. For all the Realist knows, perhaps duplicate universals really are responsible for the colours of *a* and *b*, though we should never have any means of determining whether or not this is the case.

Let's replace (1) and (2) in the argument above, then, with the following.:

(1') We *may* accept that *c* has the properties which it does as a brute fact.

(2') If we may accept this "explanation" with regard to *c*, then we may also accept it with regard to *a* and *b*.

(Strictly speaking, of course, there is no reason to distinguish here between the case of *c* in premiss (1') and the cases of *a* and *b* in premiss (2'); we could simply collapse them into a single premiss.) The force of the "may" in premisses (1') and (2') is to show that it is logically possible (if not physically possibile) for objects to have the nature which they do simply as a brute fact.

Here is the "turning point" in our discussion: Given our acceptance of the principles of explanatory and ontic simplicity, in the original argument we were forced to accept, *as a matter of fact*, that objects had their nature as a brute fact, not accountable for in terms of universals. In the revised argument this remains only a logical possibility. Hence the conclusion of the argument will be correspondingly weaker. It should be clear enough, however, that explanatory and ontic simplicity will still come down on the side of the Nominalist here. If we *may* accept that particulars just do have the nature which they do, why on earth would we want to posit universals as a means of explaining that nature? From this point the rest of the argument follows. If particulars just do have the nature which they do, then they just do have the causal powers which they do, and hence the postulation of universals is otiose (I am inclined to say "odious").

Though the conclusion in this revised version of the argument must remain weaker than the conclusion in (ii), it is perhaps strengthened to some extent by the familiar intuition that what causal powers a thing has depends upon that thing alone. (Interestingly, Armstrong often relies on this intuition in attacking his construal of various forms of Nominalism; see, e.g., I, pp. 42-3.) It makes not one wit of difference to the behaviour of *a* whether *b* ceases to exist, or never existed, or whether a million things just like *b* suddenly pop into existence (with the exception, of course, of the relational properties holding between *a* and the other objects). Under these circumstances, we are bound to be left wondering just what role there is for the supposed universality of properties to play. If we simply take *a*'s nature as given, however, this fact is immediately explicable: *a* behaves as it does simply because it has the properties which it does, regardless of whether anything else has the same properties.

3. Qualitative and Numerical Identity:

I suspect that the Realist will fall back here on his standard line: "You say that *a* just does have the nature which it does, regardless of whether anything else does or doesn't have the same nature. But the key word here is *same* nature; the Nominalist still hasn't given an account

of the *sameness* of *a* and *b*."

The Realist's continual insistence that the possible sameness of nature of particulars demands some sort of explanation reflects what is perhaps the most fundamental division between him and the Nominalist. On the Realist's view, there is only one sort of sameness; namely, numerical identity. Hence, if two particulars are the same in some respect, then there must be some *one* thing which is in both of them (namely, a universal). The Nominalist, on the other hand, will be careful to distinguish between two sorts of sameness: numerical identity and qualitative identity. Qualitative identity, the Nominalist will hold, is simply the limiting case of qualitative similarity or resemblance. That *a* (and *b*) have the nature which they do may be taken as given; that *a* and *b* have partially identical natures is simply a matter of their resembling (absolutely) in some respect.

Armstrong confesses on occasion to an inability to understand more than one notion of identity.(see especially I, 111-13) But these confessions are aimed at the Scholastic notion of "greater" and "lesser" identities, and not specifically at the notion of qualitative identity. Indeed, Armstrong seems to have a perfectly good idea of what it means for two things to "resemble exactly"(II, 110); only, he insists that all resemblance is to be analysed in terms of numerical identity. If two things resemble in any respect to the least degree, then there is something which is numerically identical in them. The plausibility of Armstrong's account of resemblance (or lack thereof) must await further discussion. For now, a few comments are in order concerning the relative merits of the Nominalist's and Realist's views with regard to identity. Perhaps the issue here cannot be conclusively resolved one way or another. But I think it can be shown that the Nominalist's view is at least as plausible as the Realist's, if not more so.

Considering the fundamental division between Nominalism and Realism on the issue of qualitative identity, Armstrong has suprisingly little to say on the subject. He does, however, attempt to support his position somewhat "back-handedly" in a number of places, by making oblique references to a sort of ordinary language argument. In characterizing G.F. Stout's

doctrine of "abstract particularism", Armstrong writes:

> According to Stout, [if two objects resemble one another precisely in their shade of red,] there are still two numerically different rednesses. Orthodox Realism would say that the two objects were of the *identical* shade of red: the objects are different but they have the same property. But on Stout's view this is false. Stout need not deny that we can say of the curtain and carpet that they are "the very same shade of red". But this is a piece of ordinary language which must not be interpreted as the Realist would interpret it.(I, 77)

The conclusion we are presumably to draw from this passage is that anyone who holds to the view that there is something called "qualitative identity" which is distinct from numerical identity, must somehow hold a view which runs counter to ordinary language and common sense. But this conclusion cannot be sustained, as Donald Williams has pointed out. (Williams is speaking here of two lollipops, the first with a red round peppermint head and the second with a brown round chocolate head. He names them 'Heraplem' and 'Boanerp', respectively.):

> The sense in which Heraplem and Boanerp "have the same shape," and in which "the shape of one is identical with the shape of the other," is the sense in which two soldiers "wear the same uniform" or in which a son "has his father's nose" or our candy man might say "I use the same identical stick, Ledbetter's Triple-X, in all my lollipops." They do not "have the same shape" in the sense in which two children "have the same father," or two streets the same manhole in the middle of their intersection, or two college boys "wear the same tuxedo" (and so can't go to dances together).[11]

Of course, whether two objects which have an identical property have it in the sense of numerical identity is precisely the issue here; Williams' assertion that they do not is of little value to us. But the examples which he provides make it clear that the Realist who seeks solace in an appeal to ordinary language will be disappointed. Ordinary uses of the words 'sameness' and 'identity' in the sense of qualitative sameness and identity are, I suggest, if anything more ubiquitous than uses in the sense of numerical identity.

It is interesting to note that the different senses of identity usually occur in different grammatical constructions. The difference between the two senses shows up specifically in the prepositions attached to the adjective 'identical'. When we wish to assert that two objects are numerically identical, we generally use the form '*x* is identical with *y*'. Assertions of qualitative identity, on the other hand, generally take the form '*x* is identical to *y*'. Thus, while the

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[11]"On the Elements of Being: I", pp. 5-6.

Morning Star is identical with the Evening Star, my wrist watch may be identical *to* yours, but it is not likely to be identical *with* yours.

Note also that it is not uncommon to attach the indefinite article to assertions of qualitative identity. (It is a pity that philosophers do not pay more attention to the lowly indefinite article, largely restricting their attention to various theories of definite descriptions.) Consider the following sentence: 'My new wrist watch stopped running, so the jeweller replaced it with an identical one.' There is no way that this statement could be confused with one asserting numerical identity, the reason being that the indefinite article is attached to the phrase 'identical one'. If I had wanted to assert that the jeweller had somehow swindled me by giving me back the same broken watch, I would have had to say that he gave me '*the* identical one' as a replacement. The force of the 'an' in the sentence is to make it clear that the replacement watch is a qualitatively identical one, one among many such watches. But when we say that there are many such identical watches, obviously we don't mean that there is really only one watch, that the many watches in question are really numerically identical. The fact that it makes perfect sense to speak of *an* identical thing, as being one of many such identical things, removes every bit of support that the Realist might wish to garner from ordinary language.

But we may go further than this. At one point in his book, Armstrong claims that:

> in the dispute between Realism and Nominalism, the onus of proof lies with the latter. Ordinary thought and discourse recognizes identity both of particulars and of property, sort or kind....All that the Nominalist can hope to do is to give a reductive analysis or account of what it is for something to have a property or to be of a certain kind or sort: a reductive analysis or account of types.(I, 19)

But Armstrong is simply mistaken here. Ordinary thought and discourse recognizes both numerical *and* qualitative identity among things. The Nominalist accepts this evidence at face value, holding that there really are two kinds of identity. Thus there is no reason for the Nominalist to attempt a reductive analysis of what it is for a thing to have a determinate property. This he may take to be a brute fact concerning the particular involved. As to providing an analysis of what it is for a thing to be of a certain kind or sort, the Nominalist

will simply hold that it follows from the qualitative similarity (or identity, in the limiting case) of that thing to other things, which in turn follows from the brute factual properties of all of the particulars involved.

The Realist, on the other hand, asserts that there is only one sort of identity, numerical identity. Thus it is he, and not the Nominalist, who is left in the unenviable position of having to provide some other account of the linguistic facts. The apparent referents of my sentence two paragraphs previous are two watches, a broken one and a replacement, and I assert that they are identical. Perhaps the Realist could maintain that the apparent referents here--the two watches--are not the real ones, that the referring expressions are merely "stand-ins" for expressions which refer to the properties of the things involved, and that these *are* numerically identical. In any case, if we take the linguistic facts seriously some such explanation is required. And the explanatory burden rests with the Realist, not the Nominalist.

There is one further point which must be touched upon here. The Nominalist holds that things have the properties which they do as a brute fact, and that sameness of property among particulars is a matter of qualitative similarity (qualitative identity in the limiting case). The Realist denies that there is such a thing as qualitative identity, and concludes that there must be something numerically identical in things which are the same. It is important to notice, however, that many objects which are the same in some respect do not (at least on the face of things) have a precisely determinate characteristic in common. We hypothesized above that *a* and *b* had precisely the same shade of blue. But most things which "have the same colour", at any rate, do not share a precisely determinate colour. The book in front of me and the sky peering through my window are the same colour--namely, blue. They are not, however, exactly the same shade of blue. We might say, in a more reflective moment, that they have roughly or more-or-less the same color. The point here is that sameness, in the context of speaking about the properties which things have, admits of degrees. This is just what we would expect if sameness of property is a matter of qualitative similarity. How can the Realist explain degrees of sameness of property? Numerical identity does not admit of degree; like a youth's reply to

his girlfriend's admission that she is "a little bit pregnant", a thing is either numerically identical with another or it isn't. The Realist has a few options open to him here, which we will explore in Chapter IV. Anticipating that discussion somewhat, I will simply say that I find none of them very convincing.

I conclude, then, that there are good grounds for the Nominalist's appeal to qualitative identity as being distinct from numerical identity, both in ordinary language and elsewhere. These grounds justify our use to this point of such constructions as things "having an identical property", or "being the same color", or "having a property in common". In what follows I shall continue to use these expressions freely. If such expressions commit me to the view that there must be some one thing which is "in" the particulars in question, then the burden of proof rests with the Realist to show that this is so.

4. The Peculiarity of Universals:

We turn our attention now to the empiricist element in Nominalism, the element which, as Marcus put it above, requires that entities admitted to our ontology be "confrontable or encounterable". It is the empirical thrust which is partly responsible for Quine's continual insistence that to countenance abstract entities is to be a Realist. In *Word and Object*, for example, Quine states that to be a Nominalist is to eschew abstract objects, and goes on to suggest that the best argument for Nominalism seems to be the empirical evidence which stems from "fairly direct conditioning to stimulatory effects of the denoted objects."[12] In his brief reply to Armstrong's reply to Devitt, Quine writes that his "explicit acceptance of classes and predicates as objects" makes him "a deep-dyed realist of abstract universals".[13]

We may digress for a moment here, to note that Quine's reply to Armstrong in the article just mentioned is perhaps a bit unfair. Armstrong accuses Quine of being a Nominalist of some kind. Quine responds emphatically that he is a Realist, but fails to make explicit the

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[12] *Word and Object* (M.I.T. Press, 1960), p. 234.
[13] "Soft Impeachment Disowned" in *Pacific Philosophical Quarterly* 61 (1980), p. 451.

differences between his and Armstrong's interpretations of Nominalism and Realism. Specifically, Quine usually identifies the universality of an entity with it abstractness. (It is interesting to note that in "On The Elements of Being" Donald Williams decried at some length the confusion of these two categories, which was perhaps attributable to his proximity to Quine at Harvard.) For Armstrong, on the other hand, a universal must be "a one which runs through many", some one thing which is numerically identical in all of its instances. Quine numbers classes among his universals, but it is difficult to see how classes could comprise universals in Armstrong's sense. To be sure, each of the members of a class stands in a membership relation to the class; if this is a real relation, then it is a one which runs through many. But the class itself is not in each of its members. Hence, Armstrong views attempts to deal with the problem of qualitative identity by reducing it to class membership of the particulars involved as a form of Nominalism--namely, "Class Nominalism".[14]

While we are digressing, perhaps a few more words are in order about classes. The problem of universals has often been expressed in this century as the problem of accounting for the role of the attributive predicate in statements such as '*a* is blue'. The constant '*a*' stands for (denotes / refers to) a particular object in the world. But what does the '(is) blue' stand for, if anything? One sort of Realist (not Armstrong--he is quite concerned to divorce the issue of universals from that of predication) may hold that the attributive predicate denotes a universal, "blueness". Faced with this linguistic analysis, the Nominalist may (i) deny that the predicate refers at all. This is the path of Quine, Goodman and others: (at least some) predicates are *syncategorematic* terms, akin to prepositions, conjunctions, articles, punctuation, and the like, which do not refer.[15] Or (ii), the Nominalist may hold that the predicate in question refers to some other, non-universal entity. With regard to this latter alternative, a few options are open. One is to maintain that the relation of an attributive predicate to its subject

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[14]Cf. Armstrong, I, 15.

[15]See, for example, W.V. Quine, "A Logistical Approach to the Ontological Problem" in *The Ways of Paradox and Other Essays* (Harvard University Press, 1966), p. 197; and Nelson Goodman and Quine, "Steps Towards a Constructive Nominalism" in Goodman, *Problems and Projects* (Indianapolis: The Bobbs-Merrill Co., 1972), p. 173.

reflects a part-whole relationship in nature, so that '(is) blue' refers to an individual (non-universal) part of the object *a*. Another option is to hold that the predicate refers to the *class* of things to which the predicate applies: the predicate '(is) blue' refers to the class of all things which are blue, and '*a* is blue' simply points out the membership of *a* in this set of things.

It is this latter interpretation, with classes playing the role of referents for attributive predicates, that concerns us here. Reservations which will be expressed in the next chapter to the side, it seems that a case can be made for replacing universals with classes as the referents of attributive predicates. The problem is that the class analysis which results is not so clearly the preserve of the Nominalist *or* the Realist. It is more Nominalistic, certainly, than a pure Realism which posits universals as the referents of predicates. The class analysis denies that there are universals in Armstrong's sense, for sets are not a one which runs through many. But the class analysis also seems to be more Realistic than the option which states that an attributive predicate refers to an individual part of its object, or the one which states that the predicate doesn't refer at all. In this respect, the analysis in question occupies its own ground somewhere between Nominalism and Realism.

To add to the confusion, the nature of classes as entities seems to stand somewhere between that of universals and particulars. If classes are particulars, then they are not, at least, the sort of thing which we normally have in mind when we use the term. Sets have a peculiar independence from spatio-temporal location, just as universals do. They are not subject to causal interaction in the way in which ordinary particulars are. Still, they are not exactly universals (in Armstrong's sense) either, a point which we have already noticed. Classes as entities occupy a middle ground somewhere between universals and ordinary particulars, just as the class analysis of predication grants somewhat more than pure Nominalism but less than pure Realism. If these facts go unnoticed, they may lead to a great deal of confusion. As we have noted, Quine locates classes on the side of Realism, while Armstrong places them with Nominalism. Marcus apparently comes down on the side of Quine, in speaking of the more

"modest" Realist who takes sets as the referents of predicates.[16]

There is one more point to be made here, which muddies the waters still further. Goodman has stated that for him Nominalism "consists specifically in the refusal to recognize classes."[17] In his view, an ontology counts as Nominalistic just in case it follows this injunction against recognizing classes. In fact, as Susan Haack has noted,[18] the basic elements of the system which Goodman presents in *The Structure of Appearance*--his *qualia*--are repeatable universals, and hence the system is not Nominalistic as we have been understanding the term. But Goodman takes his system to be a Nominalist one, simply because it does not recognize classes. His refusal to countenance classes is not due, however, to their centaur-like character, having the head of a universal and the body of a particular. Nor does the refusal follow from the issue of predication; as we have noted, Goodman seems right at home treating predicates as syncategorematic terms, and so need not worry about whether predicates refer to classes or something else. Rather, Goodman's disdain for classes follows from the fact that an infinite number of them can be constructed from the same basic elements. Hence, as he puts it, his principle of the rejection of classes "is one reasonable formulation of the traditional injunction against undue multiplication of entities."[19]

Thus we have three distinct reasons why contemporary philosophers have run together Nominalism and the rejection of classes. First, though classes are not exactly universals in Armstrong's sense, they have many of the characteristics which the Nominalist finds abhorent in universals. Second, classes may supplant universals as the referents of predicates, a suggestion which seems less Nominalistic than proposed alternatives. And third, admitting classes into our ontology allows for the construction of an infinite number of entities out of the same basic elements.

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[16]"Nominalism and the Substitutional Quantifier", p. 353.
[17]"A World of Individuals" in *Problems and Projects*, p. 156.
[18]"Platonism versus Nominalism: Carnap and Goodman" in *The Monist* 61 (1978), pp. 483-94.
[19]"A World of Individuals", p. 163.

But enough of predicates and classes. Like Armstrong, I prefer to keep the debate concerning universals distinct from the issue of predication. As to whether classes should be accounted universals, that question need not detain us. For one thing, the question is largely irrelevant so long as the similarities and differences between particulars, universals, and classes are recognized. For another, our immediate concern is with universals in Armstrong's sense.

What of Quine's view that to be a Nominalist is to reject abstract entities? Quine and Goodman opened their joint article on Nominalism with the following statement: "We do not believe in abstract entities."[20] Both have since regretted that opening sentence, though in different ways. Quine became convinced that an abstract-object-less ontology was insufficient for the demands of mathematics and science, and so was forced to admit some abstract entities (notably, classes) into his ontology. As he put it, he would "now prefer to treat that sentence as a hypothetical statement of conditions for the construction in hand."[21] Hence, though Quine has never given up his view that Nominalism consists in the rejection of abstract entities, his own position has apparently moved somewhat along the scale from Nominalism to Realism. Goodman, on the other hand, seems not to have reformed his own position so much as his view of Nominalism. Commenting on Quine's change of heart, he states:

> My own change would be not from the categorial to the pothetical, but from the vaguely general to the more specific. I do not look upon abstractness as either a necessary or a sufficient test of incomprehensibility; and indeed the line between what is ordinarily called "abstract" and what is ordinarily called "concrete" seems to me vague and capricious.[22]

Hence Goodman went on to formulate his definition of a system as Nominalistic just in case it refused to acknowledge classes.

I must confess that I share Goodman's intuitions with regard to abstractness here. It would be too quick for Nominalism to dismiss universals with a wave of the hand and an admonition that they are "abstract entities". Quine provides us with just such a wave of the hand when he writes "No matter if there are things whose status under the dichotomy [of

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[20] "Steps Toward a Constructive Nominalism", p. 173.
[21] *From a Logical Point of View* (Harvard University Press, 1953), pp. 173-4.
[22] "A World of Individuals", p. 156.

abstract and concrete] remains unclear...; for no capital will be made of the dichotomy as such."[23] Perhaps Quine is not concerned to make capital of the dichotomy on his own behalf. But the Nominalist must, if his position simply amounts to a denial of abstract entities. If Quine's attempt is the best we can hope for in defining "abstract" and "concrete" (he simply cites classes, attributes, propositions, numbers, relations, and functions as "typical abstract objects", and physical objects as "concrete objects *par excellence*"), then Nominalism is on shaky ground indeed.

We will dispense with Quine's characterization of Nominalism, then, and fall back on our original definition: Nominalism is the doctrine which denies that there are objective universals (in Armstrong's sense of the word). Still, there is the empiricist element in Nominalism to be accounted for. Universals are peculiar sorts of things, and their peculiarity is surely a part of the Nominalist's reasons for rejecting them. It will not do to label universals "abstract" and be done with them; we must inquire in some detail into the nature of the Realist's posits. If there are such things as universals, what must they be like?

We noticed in the introductory chapter that positing universals gives rise to a puzzle concerning where they are located. If the Realist were to suppose that a given universal is located where one of its instances is located, then he would have a difficult time explaining how that universal could inform all of its other instances. Hence the Realist must at least hold that universals are scattered throughout space-time at the points where their instances occur. However, this answer gives rise to a few puzzles of its own. For one thing, a universal cannot be exactly "scattered" through space-time, as the sum of all water on our planet is scattered about in rivers, lakes, reservoirs, and the like. For then only a *part* of the universal would be located where each of its instances is located. As Plato pointed out over two thousand years ago, this would simply generate the problem of universals all over again, since presumably it would now be incumbent on the Realist to explain why each of the parts was a part of the same universal. Are the parts identical in nature to each other? If so, then a higher-order universal is

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[23] *Word and Object*, p. 233.

required to account for this identity, and the puzzle about location merely recurs with regard to it.

Thus, if the Realist wishes to hold that universals are located somewhere in space-time, then he must hold that all of the universal is located where each of its instances is. But this answer is surely as puzzling as any. Suppose that two or more instances of a universal exist contemporaneously. Then it would have to be held that the universal--not a part of it, but the whole thing--existed at two or more places at precisely the same time. The Platonic answer to this puzzle is simply to deny that universals exist in space-time at all; they exist in some timeless realm of being all their own. (For Russell, universals do not exist, but rather "subsist"; see note, p. 3 above.) Armstrong rejects the Platonic answer for various reasons, and simply accepts the consequences for his "Immanent Realism": "A particular cannot be wholly present in a multitude of different places and times. But a property can."(I, 79)

There is a further problem for Immanent Realism, however. If a universal is wholly present where each of its instances is located, what happens if no instances of that universal happen to exist at the moment. Does the universal thereby cease to exist? Armstrong claims not.:

> [Universal] Properties are not the sort of thing which can be destroyed (or created). The language of destruction and creation is simply inappropriate in connection with universals. This does not mean that they are eternal Platonic objects. It is helpful here to remember that when particulars are treated as "space-time worms", having an extension in time as well as space, the language of destruction and creation becomes inappropriate when applied to them. This does not make particulars into objects immune from destruction!(I, 112-113)

But that is precisely the point! If treating particulars as space-time worms does not make them immune from destruction, why should the same treatment make universals immune from destruction?

The point may be expressed more perspicuously as follows. Suppose that we have mapped all of the objects that have ever (timelessly) existed with a specific shade of blue onto a two-dimensional space-time graph. The vertical axis of the graph represents the temporal dimension, while the horizontal axis represents one of the spatial dimensions. (We ignore the

other two spatial dimensions). Moving up the graph from bottom to top, then, we will find the beginnings or "tails" of various space-time worms; these correspond on the vertical axis to the times when the objects in question were created, or came into existence. We will also encounter heads of various space-time worms, corresponding to the points at which they ceased to exist. On the Immanent Realist's view, the location of the universal which is responsible for the shade of blue of the objects in question is represented by precisely the points on our graph where these space-time worms are located. In other words, the universal is co-extensive with (each of) the space-time worms.

Now suppose that at some time t a powerful alien, with a peculiar grudge against things with just this shade of blue, begins to travel about the universe systematically destroying the objects in question. At time $t+1$ he completes his task, finally destroying the last remaining objectionable object. (The completion of the task actually didn't take so very long, considering the longevity of the alien, since at time t there weren't very many objects in the universe with just that shade of blue.) So at $t+1$ the alien finally manages to, in a manner of speaking, chop the head off the only remaining space-time worm. This fact will appear on our graph as a blank horizontal band running clear across the graph, beginning at $t+1$ and running upward until such time as a new object with the appropriate shade of blue comes into being.

Has the universal which corresponds to the space-time worms ceased to exist at $t+1$, or hasn't it? Let's suppose that it has. The puzzle here is that the universal has ceased to exist under very peculiar circumstances. At time t the alien proceeded to fly about in his spaceship destroying blue objects. Yet with each one that he destroyed, the universal remained untouched, since it still existed in its entirety at the locations of its other instances. We can imagine the alien, as he approaches $t+1$, gradually whittling down the stock of blue objects, yet still the universal remains untouched. Finally, when the last object is disintegrated at $t+1$--a process that seems to be no different in kind from all the other disintegrations--the universal suddenly winks out of existence. This is not a matter of destroying parts of something, so that at $t+1$ the last part is finally taken care of. The destuction of a universal must be an all or nothing affair.

Each blast of the ray-gun leaves the universal absolutely untouched, until the final blast obliterates it entirely. What causes the destruction of the universal? An action that is not relevantly different from an indefinite number of other actions. Destroy an instance of a universal, and the universal remains untouched. Destroy another instance (or the very same one, if all the other ones just happen to have been destroyed first), and the universal suddenly vanishes. The Nominalist is bound to be awed by such a magical process.

Suppose, on the other hand, that the universal is not destroyed at $t+1$. Where is it, then? Somewhere, presumably; but not there, or there, or there, or.... The blank horizontal band on our graph is a means of illustrating that, within the temporal region running from $t+1$ up to $t+$whatever, there is no very good reason for supposing that the universal exists in space-time at all. It will not do to point to the space-time worms on the graph at time t, and assert that the universal still exists there. For this amounts to no more than saying that the universal used to be there at time t, but that we don't quite know where it is now. (Similarly, it wouldn't bother our alien one bit if we pointed to the graph and said that things with an objectionable color still exist there, at time t.) Nor will it do to declare by fiat that "the language of creation and destruction is simply inappropriate in connection with universals." The Realist holds that universals objectively exist. If he further holds that they exist in space-time, as Armstrong does, then it makes perfect sense to ask where a given universal exists at a given time. It may be that universals can neither by created not destroyed; but this does not make the language of creation and destruction "inapropriate" to them. Perhaps it could be held that from $t+1$ to $t+$whatever the universal is not located at a specific place or places, but that it somehow permeates all of space-time in an ether-like fashion. Once again, however, it couldn't be that part of the universal/ether was over here, and another part over there. All of the universal would have to be at each and every point in the space-time continuum. Plato's solution to the location puzzle begins to look very attractive.

Armstrong is sensitive to this point, I believe. Immediately following the passage last quoted, he writes:

> If all this be a Platonic theory of universals, then I can only say that I think that Plato was right. But as Plato is traditionally interpreted, the theory I am defending is anti-Platonic in at least one respect. There is no separation of particulars and universals.(Ibid.)

Even this thesis, however, begins to look dubious. Either a universal ceases to exist when all of its instances cease to exist, or it doesn't. If it does, then the Realist must face the problem of how similar causes may have radically different effects (vis., the difference between destroying the second last instance of a universal, and destroying the last one). If the universal doesn't cease to exist, then it follows that a universal may exist while none of its instances do. How could it be held, then, that there is "no separation of particulars and universals"?

This is not to say that Armstrong must give up his "Principle of Instantiation": "For each N-adic universal, U, there exist at least N particulars such that they are U."(Ibid.) If the arguments just presented are sound, however, "there exist" in the principle must be read timelessly: 'For each N-adic universal, U, there exist, or did exist, or will exist at least N particulars such that they are U.' Indeed, Armstrong explicitly declares that the principle must be read in this fashion.(II, 9) But it is difficult to see how he could be satisfied with such a reading. Part of the reason that he adopts Immanent Realism is to avoid the "relational" problem associated with Transcendent Realism. (See I, pp. 69-71; this is really a version of Bradley's regress.) If universals are taken to be transcendent entities, then there must be some relation which bonds a particular to its universals. Since this relation is a one which runs through many, a universal must be posited to account for it. But since this relational universal is presumably also a transcendent one, a further relational tie must be posited between particulars and this universal. Hence, a second-order universal is born, and a vicious regress is off and running.

Realists such as Armstrong avoid this problem by adopting an immanent view of universals, and positing a "non-relational tie" between a particular and the universals which instantiate it. The phrase "non-relational tie" is Strawson's,[24] and Armstrong decries its use.(I,

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[24] *Individuals* (London: Methuen, 1959), p. 167.

109) But he can do little better, except to assert that the connection between particular and universal is so close that it of as a "tie" at all. In his reply to Devitt, Armstrong acknowledges that this is a rather mysterious answer to the Bradleyan regress.[25] More importantly for our purposes, it begins to look as though this mysterious "Non-Relational Immanent Realism" is actually incoherent. Armstrong states at one point that the bond between particular and universal can be understood on the lines of Scotus' "formal distinction".(I, 110) In other words, though universality and particularity are formally distinguishable (they are *really* distinct), they are inseparable in nature. But if a universal does not cease to exist when all of its instances cease to exist, what does all this talk of inseparability amount to? Questions of mysteriousness to the side, it strikes me that the Non-relational Immanent Realist is involved here in an outright contradiction.

There is a further problem with this mysterious inseparability of particular and universal. Let us suppose that here on Earth there is an object, *a*, which is *F*. (Let *F* be a determinate property.) Now suppose that there is an object *b* on Pluto which is also *F*. The *F*ness of *a* and the *F*ness of *b* are, according to the Realist, numerically identical. Hence it follows that if *a* is inseparably united with its *F*ness, then *a* is also inseparably united with the *F*ness of *b*. But isn't this absurd? So far from *a* being united with the *F*ness of *b* by an inseparable non-relational bond, the two are separated by millions of kilometers. (In the next chapter we shall see that similar considerations give rise to absurdities in the case of causal attributions.)

We may briefly touch on a couple of more points. We noticed in Section 2 above that the Realist must take at least part of the nature of every universal to be given, not accountable for in terms of higher-order universals. In addition to escaping the explanatory and ontic excesses which followed from positing ever higher-order universals, this was the only plausible means of holding that each universal is unique. The problem here is that each universal is *necessarily* unique; to hold otherwise would be to allow that duplicate universals might exist,

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[25]"Against 'Ostrich' Nominalism: A Reply to Michael Devitt" in *Pacific Philosophical Quarterly* 61 (1980), pp. 446-8.

and so destroy the supposition that objects which have the same properties have them in virtue of being instantiations of numerically the same universal. Why is (part of) the nature of every universal necessarily unique? In principle, at least, a particular's nature may be shared by an indefinite number of other particulars. Why not a universal's nature, as well? If the Realist has a good answer here, it is hard to see what it might be.

We also noticed in Section 2 that Armstrong advocates the principle that postulated entities must be possessed of causal efficacy. The Nominalist will likely go one step further than this, and hold that all things that exist are possessed not only of causal strengths, but of causal liabilities as well. Real things do not only act, they are acted upon; they play both the role of mover and moved in the causal chain. On Armstrong's view universals may play the former role, but not the latter. The alternative, as we have seen, is to hold that universals may be acted upon, but give up the principle that similar causes have similar effects. Even here, there is no room for change in a universal's nature; a universal might be created or destroyed under peculiar circumstances, but it can never be changed.

The conclusion must be that, for any philosopher of an empiricist bent, the positing of universals will be a positively repugnant enterprise. Universals either exist in some eternal realm apart from our world, or they exist in many different places at once. If the latter, then either they do not abide by the law of similar cause-similar effect, or else they cannot be created or destroyed. If the latter of these, then universals are bonded to their particulars by a "metaphysical glue"[26] (even when the two are separated by millions of kilometers), and are inseparable though distinct from them, yet a universal may survive after all of its instances have fled the realm of being. What's more, universals are necessarily unique, and though they are presumed to have causal efficacy, they cannot be acted upon. All this, simply to explain why objects may be qualitatively similar, or qualitatively identical in the limiting case? No wonder that so many empiricists have taken Nominalism to heart!

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[26]I borrow the phrase from Devitt, p. 437.

5. A Pseudo-Explanation:

To this point it has been argued (i) that the Nominalist may accept that particulars have the properties which they do as a brute fact; (ii) that this line of thought has clear explanatory and ontic benefits over the Realist's position; (iii) that qualitative identity among particulars is merely the limiting case of qualitative similarity, and so does not constitute a special problem in addition to providing an account of resemblance; and (iv) that given the perplexing character of universals, Realism can only be viewed as a desperate reaction to the problem of qualitative similarity.

There is one more brief issue to deal with, before we turn our attention to Armstrong's arguments against Nominalism. Most Nominalists, I suspect, have viewed the Realist's account of universals as a sort of pseudo-explanation of why things may have a property or properties in common. The point may be brought out as follows. The question of why two things may have the same nature is no different in principle from the question of why two things may have different natures. We may ask why *a* and *b* are the same colour, but we may also ask why *a* and *c* are different colours; both of these are merely variations on the theme: 'What account can we give of a thing's having the nature which it does?'. On the Realist's view, that *a* and *b* have the same colour is attributable to there being a "sameness-maker", a universal, in them. Shall we say that there is a "difference-maker" in *a* and *c* which accounts for their different colours? Perhaps there are many distinct difference-makers in *a* and *c* (and *b*, and everything else), which account for the differences between them and a host of other things.

All of this is ridiculously uncharitable to the Realist, of course, but it captures the underlying intuition well enough. The physicist can provide an account of what it means for a thing to have a certain colour, and this account is at once an explanation of why *a* and *b* are the same, and of why *a* and *c* are different. But to the Nominalist, the Realist's universals smack too much of merely excess verbiage, too much like attributing a "dormitive power" to sleeping pills or a "reflective power" to things which reflect light. To say that sleeping pills have a dormitive power is simply to say that they are sleeping pills. Similarly, when the Realist's

doctrine is stripped of the repugnant conclusions which follow from puzzling over how a thing may be at many different places at once, universals amount to little more than sameness-makers, which is simply to say that *a* and *b* have the same color because they do. And this, of course, is the conclusion which was pushed for in Section 2 above.

Another way of making the point is this.[27] The Realist does not, at least on the face of things, voice his question concerning sameness of property in terms of a "super-ultimate 'why'".[28] He does not, in other words, ask why things may have similar properties in the same tone of voice in which someone might ask the unanswerable 'Why is there anything at all?'. Nor does he ask why things have the properties which they do in the sense in which a theologian might ask why human beings are as they are; the Realist does not presume to provide an answer to this teleological 'why'. The causal 'whys' or 'hows' or 'whats' ('How is it that *a* and *b* came to have the same colour?', and 'What is the underlying structure of *a* and *b* such that they reflect the wavelengths of light which they do?') are the preserve of the scientist; universals are no help in answering these questions. So what's left? The Realist does not claim to be engaging in an epistemological exercise when he posits universals; the issue is not primarily one of explaining how we come to know that *a* and *b* have the same color. Nor is the issue primarily one of explaining how we can apply the same predicates to different things.

The key here lies in taking note of the sort of answer which the Realist does and must inevitably accept. Universals, it must be held, have the nature which they do simply because they do; it is a brute, inexplicable fact about the universe. In other words, to ask why a universal has the nature which it does, is to ask something like an unanswerable super-ultimate 'why' question after all. The analogy is not perfect. A true super-ultimate 'why' is unanswerable because there is literally no place to look for an explanans outside of the explanandum. The difference between this and the case of a universal's nature is that, while we may originally go beyond a universal in seeking an explanation of its nature, re-iteration of the

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[27]Devitt, p. 436, goes some way towards making the point in this fashion.
[28]The phrase is borrowed from Paul Edwards, "Why" in *The Encyclopedia of Philosophy*, pp. 296-302. Edwards argues that super-ultimate 'why' questions are literally senseless, since by their nature they are unanswerable.

question inexorably leads us to the unanswerable. But at any rate, the kind of answer which the Realist accepts with regard to the nature of universals suggests that his 'why' is something like a super-ultimate 'why', and hence there are grounds for supposing that the question was a super-ultimate 'why' one in the first place. If this is true, then the only decent answer is "just because", which in turn accounts for the hollow ring of the Realist's "sameness-makers". Why do *a* and *b* have the colour which they do? Why do *a* and *c* have different colors? Why is there anything at all? Just because; and the fact that *a* and *b* resemble (absolutely) in a respect follows from these brute facts. Or at least, that is how the Nominalist sees the matter.

III. NOMINALISM AND PARTICULARISM

1. Armstrong on Nominalism:

Armstrong distinguishes five different variations on what he takes to be the Nominalist theme.(I, 12-17) Each of them is a reductive account of what it is for a particular to have a property, and each of them is a "relational" account. It will be instructive to spend a few moments looking at Armstrong's five varieties of Nominalism, and the arguments which he brings to bear against them.

Predicate Nominalism is the doctrine which asserts that "*a* has the property, *F*, if and only if *a* falls under the predicate '*F*'." It is important to recognize the reductive character which Armstrong attributes to this formula. The formula is not a simple equivalence; the right-hand side is intended as "a logical analysis, a *reductive* analysis, of the left-hand side." Thus, for the Predicate Nominalist properties "are nothing but a shadow cast upon particulars by predicates." Similarly, *Concept Nominalism* is the reductive analysis which asserts that "*a* has the property, *F*, if and only if *a* falls under the concept *F*." Concept Nominalism, on Armstrong's view, claims that a particular's nature is nothing but a shadow cast upon it by human conception.

We will not concern ouselves further with these two versions of Nominalism, except to refer to them for illustrative purposes. They amount to little more than the position which we rejected with Woozley in the introductory chapter, that there is "nothing common to a class of particulars called by the same name other than that they *are* called by the same name." The only relevant difference between Predicate and Concept Nominalism is that the former might appeal more to the behaviourist philosopher who hesitates to get mixed up with dubious mental posits. Armstrong too seems to rely on these versions of Nominalism mainly for purposes of explication. (He does, however, cite Searle as a possible example of a Predicate Nominalist; I daresay Searle might object.) At any rate, it should be clear that these two are hardly attractive options for a majority of philosophers.

The third variety of Nominalism is *Class Nominalism*: "*a* has the property, *F*, if and only if *a* is a member of the class of *F*s." Again, this is intended as a reductive analysis; the Class Nominalist holds that a thing's nature is *constituted* by its membership in a class. Armstrong admits that he doesn't know of anyone who defends such a position. Rather, it is a "pervasive tendency" or "occasional assumption" among Nominalist sympathizers. In the next chapter will we have occasion to say more about the "pervasive tendency" of Nominalists to invoke classes. But we will not be overly concerned with Class Nominalism as a doctrine in its own right.

Mereological Nominalism--"*a* has the property, *F*, if and only if *a* is a part of the aggregate (heap) of *F*s"--is presented as little more than a footnote to Class Nominalism. Armstrong perhaps includes this variation in deference to those philosophers who, like Goodman, express an aversion to classes. It is open to most of the difficulties of Class Nominalism, plus a few of its own.

Finally we arrive at *Resemblance Nominalism*, the doctrine which asserts that "*a* has the property, *F*, if and only if *a* suitably resembles a paradigm case (or paradigm cases) of an *F*." Once again it must be emphasized that Armstrong takes the Resemblance Nominalist to be providing a reductive account of what it is for a thing to have a property: things have the nature which they do, on this view, solely in virtue of their resemblances to other objects. According to Armstrong this is the most common and fully worked out form of Nominalism, and hence we will focus most of our discussion upon it. Armstrong directs his critique of Resemblance Nominalism mainly at an account developed by H.H. Price.

These are the five variations of Nominalism which Armstrong explicates and attacks. He doesn't claim that the list is exhaustive, but does claim that the arguments which he puts forth in his book "can be used to refute any form of Nominalism".(I, 16) Some of those arguments are specific to the type of Nominalism which he is attacking at a given moment. Of these, we will be concerned mainly with the arguments directed at "Particularism" (which Armstrong acknowledges to be a form of Nominalism in his less sloppy moments), and those

directed specifically against Resemblance Nominalism. Discussion of the former will occupy the third section of this chapter, while discussion of the latter is deferred until Chapter IV.

Apart from these specific arguments, there are three sets of objections which Armstrong raises against all of the varieties of Nominalism. The first of these we may refer to as the "independent existence" objections. With regard to Predicate and Concept Nominalism, the argument runs as follows: It seems logically possible for a white thing to exist even if no speakers or thinkers exist (or ever have existed, or ever will exist). Hence, it can't be the case that a thing's nature is dependent solely on the predicates or concepts which it falls under. The Resemblance Nominalism variant of this objection amounts to pointing out that if an object is one of a kind in some respect, then there are no paradigms for it to resemble, and hence the possession of the property in question cannot be constituted by the object's resemblance to other objects. We may note here the similarity of Armstrong's "independent existence" objection to the line of thought that was developed in Section 2 of the previous chapter. There it was argued that, since it is logically possible for an object to have a unique property, the principles of explanatory and ontic parsimony render the postulation of universals otiose.

The second set of general arguments raised against Nominalism are the "regress" arguments. Armstrong distinguishes two types of regresses within this set. The "object" regress applies only to Predicate and Concept Nominalism, and runs as follows: In attempting to reduce a thing's having of a property to a relation between the thing and a predicate (or concept), these forms of Nominalism forget that they are not dealing with predicate (or concept) tokens, but rather predicate (or concept) *types*. In other words, the same problem as was raised with regard to the properties of things arises with regard to the properties of predicate (or concept) tokens. If the Nominalist attempts to hold that a predicate or concept is of a certain type iff it falls under a higher-order predicate or concept, then he becomes embroiled in a vicious regress.

Class and Resemblance Nominalism are not subject to the object regress because their analysans--classes and paradigms, respectively--are not types but individuals. The "relation"

regress, on the other hand, applies to all of the Nominalist forms. If the properties which a thing has are constituted by its relation to a predicate or concept, or a class, or a group of paradigm objects, then each of these relations--"falls under" in the case of predicates and concepts, "is a member of" in the case of classes, and "suitably resembles" in the case of paradigms--is a type which may be tokened by inumerable things. In consistency the various forms of Nominalism could only explain that the things in question were instances of "falling under" or "is a member of" or "suitably resembles" by in turn holding that these too fall under predicates or concepts, or are members of the class of ordered pairs of membership relations, or suitably resemble a paradigm group of resemblances. Thus the relation regress is born. Russell has in particular immortalized the regress with regard to Resemblance Nominalism.[29] We noticed above that the regress also applies to Transcendent Realism; Armstrong only avoids it in the case of his own Non-Relational Immanent Realism by declaring that the attachment of universals to particulars, whatever it might be like, is non-relational.

The third and final set of general objections which Armstrong raises against the Nominalist may be termed the "arguments from causal self-sufficiency". It was noted above that Armstrong defends the principle that an account of a thing's properties, including its relational properties, exhausts an account of its causal efficacy. Now, it seems apparent that what causal powers a thing has are independent of what predicates or concepts it falls under, or what classes it belongs to, or what resemblances it has to other things. Hence it can't be that things have their nature solely in virtue of the various reductive alternatives. We cited a variation of this self-sufficiency argument above, in support of the proposition that what properties a thing has should be accepted as a brute fact, not explicable in terms of universals.

These, then, are Armstrong's primary objections to Nominalism: the independent existence objection, the regress objections, and the causal self-sufficiency objection. They are also his primary line of defense of Realism, since as we observed above, Armstrong embraces Realism only when he is unable to find a Nominalistic path out of his metaphysical

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[29] *Problems of Philosophy*, p. 55.

puzzlements. What we must take account of here is that all of the objections depend, in one way or another, on taking the Nominalist to be providing a reductive account of what it is for a thing to have a *determinate* property. ("Determinate" must be emphasized because, as will be argued later on, each of Armstrong's five formulations of Nominalism has at least some plausibility if the term '*F*' in the reductive analyses is taken to refer to a *determinable* property.)

Suppose, as was argued for in the previous chapter, we take the determinate properties which an object has to be given, one of the brute facts of the universe. In other words, suppose (where '*F*' refers to a determinate property) that the Nominalist simply accepts that '*a* has the (non-universal) property, *F*,' without attempting any sort of reductive analysis of this brute fact. It should be clear that in this case none of Armstrong's general objections to Nominalism will hold. The independent existence and self-sufficiency objections both depended upon being able to remove through a thought-experiment the entities--predicates, concepts, classes, or paradigms--which composed the right-hand side of the reduction. Where the reduction was supposed to provide an account of *a*'s determinate properties, it followed that this thought-experiment similarly stripped away *a*'s determinate character. *a* became a featureless "bare particular", a natureless something; yet it seemed apparent that *a* might have the nature and causal powers which it did even in the absence of the entities which composed the analysans. If *a*'s determinate characteristics are taken as given, on the other hand, Armstrong's thought-experiments leave the nature (and hence the causal powers) of *a* untouched.

The relation regress likewise depends on taking the Nominalist to be providing a reductive analysis of *a*'s determinate properties. This is especially clear in the case of the Resemblance analysis. If we rest with the fact that *a* has the non-universal determinate property, *F* (or simply '*a* is *F*', so as not to beg any questions at this stage of the game), then the resemblance of *a* to other objects depends upon what determinate properties it and the other objects have, and not vice versa. In other words, resemblances are parasitic on the determinate properties of the objects involved; they are not used to account for those

determinate properties, and hence there is no relation involved in the analysis of *a*'s being *F* which might begin to viciously multiply behind our backs. (It might be thought that a pure Bradleyan regress applies even to the brute fact analysis, at least in the case of the '*a* has the property, *F*' formulation; the relation of "having" between *a* and *F* requires further relations to bind it to the terms of the analysis, and those relations require still more, and so on. But this line of thought is mistaken, at least if the "having" relation is understood along the lines of a part-whole relationship. If particulars have determinate properties in the sense in which, say, I have two arms and two legs, then the relation "has as a part" is not in turn a part of the objects in question, and so does not require a further relation to bind it to the terms.)

So Armstrong's general objections to Nominalism do not touch the brute fact analysis of what it is for a thing to have a determinate property. But we can go even further than this. The Realist's own reductive analysis of what it is for a thing to have a determinate property may be formulated as: '*a* has the property, *F*, if and only if *a* is an instance of the universal *F*ness.' When the Realist's position is expressed in this fashion, it is not far-fetched to suppose that a version of each of Armstrong's general objections to Nominalism will apply to it as well. And this is indeed the case, as we noticed above. The independent existence objection showed up in conjunction with Ockham's razor: if it is possible for a thing to have a unique property, then since the positing of universals would only clutter our ontology without providing explanatory benefits, Ockham's razor demands that we dismiss the Realist's posits. The object regress is avoided by the Realist only if he holds that part of the nature of every universal is necessarily unique. Armstong avoids the relation regress only by sticking together particular and universal with what Devitt terms a "metaphysical glue". And the causal self-sufficiency objection argues for rejecting universals, since what causal powers a thing has are in no wise dependent upon something which the Realist holds to be "in" other things as well.

2. Two Brute Fact Analyses:

The brute fact analysis of properties holds that things have their nature objectively, in the sense that determinate properties are neither mind-dependent nor reducible to something else, but further denies that those determinate properties are universals. The analysis is thus a form of particularism, the view which states that "there are objective properties and relations, but that these are not universals but particulars, as particular as the objects which have them."(I, 58) Once again it must be emphasized that Nominalism is in essence the contention that all things that exist are particulars. The doctrine is a denial of objective universals, *not* of objective properties. Of course, it would be possible in theory for a Nominalist to go on and deny the objectivity of determinate properties; but I know of no philosopher who has done so, Armstrong's five characterizations of Nominalism notwithstanding. Armstrong typically conflates the denial of universals with the denial of properties altogether,[30] but in his more lucid moments he admits that particularism is a form of Nominalism. In the next section we will focus on the objections which Armstrong raises specifically against particularism.

Before turning to those arguments, there is a further point which needs to be cleared up. It was mentioned above that Michael Devitt advances a kind of brute fact argument against Armstrong. Devitt's article is a defense of Quine against Armstrong's charge that Quine is an "Ostrich Nominalist" (i.e., the sort of Nominalist who simply refuses to provide an account of types). Now, the problem here is that Devitt does not exactly take the *properties* which things have to be objective. He accepts the Quinean criterion of ontic committment, that 'to be is to be the value of a bound variable'. Hence, since predicates do not refer, saying that '*a* is *F*' does not commit him to there being something (i.e., a property, whether particular or universal) to which the '*F*' refers. Devitt does make it very clear, however, that he considers the *nature* of *a*

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[30]See, for example, II, 103: "The Nominalist wishe[s] to get rid of apparent referring expressions such as 'Triangularity' and 'Redness' in favour of mere predicates such as 'triangular' and 'red', preparatory to *denying objective properties altogether*."(my emphasis) Similar remarks occur frequently. Coupled with the fact that Armstrong discusses under the explicit heading of Nominalism only the five versions mentioned above (each of which asserts that properties are non-objective in the appropriate sense), such remarks help to explain why Campbell (see p. 6 above) distinguishes Nominalism and particularism as sharply as he does.

to be quite objective in the requisite sense.:

> The Quinean thinks that there *really must exist something* (said as firmly as you like) that the predicate 'F' applies to. However that thing is not a universal but simply an object. Further, in denying that this object need have properties, the Quinean is not denying that it *really is F* (or G, or whatever). He is not claiming that it is "a bare particular." He sees no need to play that game.[31]

The difference between this position and the one that I am advancing is, to put the matter in terms of Quinean ontic committment, while Devitt refuses to quantify over properties (whether particular or universal), I will freely quantify over properties while insisting that they are particulars. There is a sense, then, in which Devitt denies that there are objective properties. It is clear, however, that he takes the nature of particulars to be a brute, objective fact in a way that avoids the general objections to Nominalism outlined in the previous section. Devitt does not fall under any of the five characterizations which Armstrong enlists in accusing the Nominalist of denying objective properties.

There remains the issue of whether to accept Devitt's brute fact analysis, or the one which I am proposing. Shall we quantify over (particularized) properties, or shall we not? As far as I know, neither Devitt nor Quine takes any explicit notice of the difference between properties viewed as universals, and properties viewed as particulars. It might be supposed that if they did, then perhaps they would not be so steadfast in their refusal to quantify over the latter. But this is by no means clear. Quine, recall, makes little of the distinction between universal and particular, going so far as to *define* Nominalism as the doctrine which rejects abstract entities (whatever these are). Since particularized properties are sometimes referred to as "abstract particulars", perhaps Quine would remain as steadfast in his refusal to countenance particular properties as he is in his rejection of universals. In any case, it seems unlikely that Williams' theory of particularized properties could have escaped Quine's notice. Hence, his refusal to quantify over properties must presumably include properties viewed as particulars.

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[31] "'Ostrich Nominalism'?", p. 435.

What can be said of Quine's criterion of ontic committment? Armstrong himself has this to say concerning the "extraordinary doctrine that predicates involve no ontological committment.":

> In a statement of the form 'Fa', [Quine] holds, the predicate 'F' need not be taken with ontological seriousness. Quine gives the predicate what has been said to be the privelege of the harlot: power without responsibility. The predicate is informative, it makes a vital contribution to telling us what is the case, the world is different if it is different, yet ontologically it is supposed not to commit us. Nice work: if you can get it.[32]

I share Armstrong's intuitions here, though the issue is a difficult one. Devitt writes that "Even the alleged unity of particular and universal [more appropriately, here, of particular and property] can be captured without mystery: a predication must involve both a singular term and a predicate; drop either partner and you say nothing. For the Nominalist the unity of predication is an unexciting linguistic fact."[33] But surely this is not merely an "unexciting linguistic fact." Is it primarily a linguistic fact at all? Why should it be that we require both a subject and a predicate to say something about the world?

But enough of the issue of predication. Even if we accept Quine's criterion of ontic committment, there are in any case independent reasons for allowing quantification over particularized properties. Borrowing from Arthur Pap and Frank Jackson, Armstrong provides a number of statements which the Quinean who refuses to quantify over properties cannot adequately deal with.(I, Ch. 6) For example, the statement 'Red resembles orange more that it resembles blue' cannot be suitably paraphrased as 'For all particulars, *x*, *y*, and *z*, if *x* is red and *y* is orange and *z* is blue, then *x* resembles *y* more than *x* resembles *z*.' For *x* may be a red pen, *z* a blue pen of the same make, and *y* a marigold, in which case *x* will resemble *z* more than *y* and the proposed paraphrase will turn out to be false. Similarly, the Quinean is unable to deal with such statements as 'Humility is a virtue'.[34] This statement will not admit of the paraphrase 'Humble persons are virtuous' (an option which Quine considers only to reject),

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[32] "Against 'Ostrich' Nominalism", p. 443.
[33] "'Ostrich Nominalism'?", p. 437.
[34] Quine himself cites this example in *Word and Object*, pp. 119-23. Armstrong discusses it in "Against 'Ostrich' Nominalism", pp. 444-5; in his book he discusses the similar 'He has the same virtues as his father'.

since it may in fact be the case that every humble person has undesirable characteristics which make her or him not at all virtuous.[35]

Quine seems to think that talk of properties can be dispensed with in favour of talk of classes and "eternal open sentences" (i.e., eternal predicates).[36] Classes and eternal predicates are of course as abstract as properties themselves (whatever that amounts to), but the former are apparently less objectionable than the latter. Unfortunately, Quine never tells us just how it is that eternal open sentences and classes are to fill the void left by his refusal to quantify over properties in the difficult cases. In the case of eternal predicates, I have no idea how 'Red resembles orange more than it resembles blue' is to be cashed out in terms of [is red] and [is orange] and [is blue]. Certainly the eternal predicates themselves do not bear the necessary resemblance relations to each other! The paraphase 'Objects to which [is red] applies resemble objects to which [is orange] applies more than objects to which [is blue] applies' will not do, since pens and marigolds falsify this one as well. In any case, if positing eternal predicates is the only out for the Quinean here, however his analysis might be formulated, then he might just as well swallow his pride and acknowledge particularized properties. For the latter have one very large advantage: they exist in space-time.

Neither does it seem that the invocation of classes will help the Quinean out of his difficulties. The paraphrase 'For all particulars *x*, *y*, and *z*, if *x* is a member of the red class, and *y* is a member of the orange class, and *z* is a member of the blue class, then *x* resembles *y*

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[35]In addition to these examples, Armstrong also cites 'Red is a colour' as being troublesome for the Quinean. The paraphrase 'For all particulars *x*, if *x* is red, then *x* is coloured' will not work, according to Armstrong, because the similar 'For all particulars *x*, if *x* is red, then *x* is extended' does not entail 'Red is an extension'. But surely the point of Quinean paraphrase is not to arrive at a statement which is precisely equivalent to the one being paraphrased. (Cf. *Word and Object*, pp. 258-9.) At one point Armstrong states that the extension example proves that the proposed paraphrase is an "undertranslation" of the original (II, 104), which presumably means that certain inferences may be drawn from the latter which cannot be drawn from the former. And indeed the proposed paraphrase *is* an undertranslation in this sense: from the original, but not from the paraphrase, we can infer the original itself. What is not clear is why the Quinean would want to be able to make this inference, since it is the original which he finds objectionable in the first place.

[36]See *Word and Object*, p. 209.

more than it resembles *z*' doesn't touch the problem of pens and marigolds. Nor do classes solve the problem of humble persons who aren't virtuous. In addition, there is the well-known problem of co-extensiveness of property classes, which suggests that any attempt to supplant properties with classes is doomed to failure.

In addition to being unable to provide suitable paraphrases of statements which refer to properties, the Quinean also runs into difficulties with statements such as 'The weakness of the cable caused the collapse of the bridge.'[37] Such causal attributions apparently require quantification over particular properties. It is not the cable which caused the collapse of the bridge, but the *weakness* of the cable. Neither did the cable's membership in the class of weak things cause the collapse. It might be suggested that 'The cable's falling under the eternal predicate [is weak at such and such a time and place] caused the bridge to fall under the eternal predicate [collapses at such and such a time and place]' is an adequate analysis of the situation. The obvious *ad hominem* rejoinder is that predicates, eternal or otherwise, had nothing to do with it; the collapse would have occured in any case. (We may perform one of Armstrong's thought-experiments here: mightn't it be the case that that the cable had the nature which it did, even though the appropriate eternal predicate did not exist? If so, then the proposed analysis can't be the proper one.) And once again, appeal to eternal open sentences is truly a desperate remedy.[38]

The Quinean's difficulties do not end here, however. Armstrong is correct in a very real sense when he accuses Quine and Devitt of being Ostrich Nominalists; for they *do* refuse to give an account of types. Devitt may well hold that *a* is *F* as a brute fact about the world. But if *b* is also *F*, then *a* and *b* resemble in some respect (they resemble exactly in some respect, if *F* is a determinate property). This is a truth about the world, one which requires expressing. But the

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[37]I borrow the example from Campbell, "The Metaphysic of Abstract Particulars", p. 480.

[38]Campbell also points out that analysis of these causal attributions in terms of *qua* clauses will not suffice: If we hold that the cable *qua* weak caused the collapse, but deny that the cable *qua* steely caused the collapse, then if follows that at least one of 'the cable *qua* weak' and 'the cable *qua* steely' refers to something other than the cable. What could this be, except the weakness (or steeliness) of the cable?

Quinean seems unable to express it, because of the well-known problem of cashing out the phrase "in some respect". Refusal to quantify over properties leaves us with nothing more than overall resemblances among objects, and hence we are unable to express the difference between the resemblance of two pens, and the resemblance of one of them to a marigold.

To state the matter somewhat more succinctly: resemblance is presumably a transitive relation (though since it admits of degrees, the transition may be correspondingly weaker than the original relations). Hence, if a blue pen resembles an orange pen of the same make to a significant degree, and the orange pen resembles a certain marigold to a significant degree, then it should follow that the blue pen significantly resembles the marigold (allowing, of course, for some weakening of the transitive resemblance). But this is absurd; the blue pen resembles the marigold hardly at all, and certainly not to a significant degree. Quantifying over properties allows us an easy way of explaining the facts, while preserving the transitivity of resemblance: the shape of the blue pen resembles the shape of the orange pen, but the colour of the orange pen resembles the color of the marigold.

There is one more way of expressing the point. If the Quinean attempts to supplant properties with classes, then it is not just any classes which will do. (Cf. Armstrong, I, 38-40) What we require are *property* classes; that is, classes of objects which have a particular property. How is the Quinean to define these classes? Presumably he will have to appeal to the resemblances among the objects in question. But if he can only appeal to overall resemblances among objects, then he winds up with blue pens and orange pens and marigolds all in the same class, which clearly will not suffice. Perhaps it could be held that each member of the class must have a certain minimum degree of overall resemblance to *every* other member of the class. For example, if the class which we were attempting to define was the class of pen-shaped things, then this criterion would rule out marigolds as candidates for membership in the class. For though marigolds have a high degree of overall resemblance to orange pens, they do not display a sufficient degree of overall resemblance to other members of the class (i.e., to the blue pens).

This analysis runs into immediate epistemological difficulties, however. Since there will as a matter of fact be many objects belonging to a property class with which we are unfamiliar, how could we ever know that an object did or did not belong to the class? For the proposed criterion of membership demands that an object be tested against *every* other member of the class for overall resemblance. I know that the blue and orange pens belong to the same shape class; yet I am not familiar with many of the objects which belong to this class. How can this be?

The epistemological difficulty is hardly conclusive, of course. The question here is primarily an ontological one, though epistemological issues are obviously relevant. In any case, the problem of the transitivity of resemblance still remains. If we can rely only on overall resemblances, then it seems we must give up the transitivity of that relation, on pain of the blue pen to orange pen to marigold transition. Yet I for one am not willing to give up so much. I do not mean to suggest here that the transitivity of resemblance is entirely unproblematic. For one thing, where resemblances are less than exact it is not clear how we may go about formulating criteria for the weakening of the transitive relation. But in the case of exact resemblances, at least, giving up the transitivity of resemblance rules out inferences which we do and, I suggest, wish to continue to make. If something in *a* exactly resembles something in *b*, and that something in *b* exactly resembles something in *c*, then we may conclude that the original something in *a* exactly resembles the something in *c*. The Quinean can draw no such conclusion.[39]

The problem for Quine and Devitt in all of this is that they have no way of referring to just one aspect of the objects which they permit themselves to quantify over. Hence, other characteristics of the objects in question keep popping up to falsify their proposed analyses,

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[39]The Quinean could presumably maintain that exact *overall* resemblance was transitive. But this would leave the puzzle of why only exact, and not inexact overall resemblances, were transitive. Resemblances in a respect are transitive, even when those resemblances are inexact. Overall resemblances are not transitive, except when the overall resemblance is exact. Isn't this fact explained by noting that exact overall resemblance simply amounts to exact resemblance in every respect, and that each of the respects of resemblance is itself transitive?

whether those analyses be of sentences which purport to refer to properties, or whether they are analyses of causal attributions, of whether the analysis at hand is merely (!) an attempt to express the fact that things do resemble each other in various respects (i.e., is "merely" an attempt to give an account of types). Armstrong is quick to acknowledge that the particularist is not involved in these difficulties, since he may freely quantify over just one aspect of the Quinean's objects. For example, the variables in the paraphrase 'For all particulars *x*, *y*, and *z*, if *x* is red and *y* is orange and *z* is blue, then *x* resembles *y* more than *x* resembles *z*' may be taken to range over particular (determinate) rednesses, orangenesses, and bluenesses, rather than the Quinean's objects *in toto*, and hence the paraphrase is an adequate one. I conclude that there are good grounds for rejecting Devitt's version of the brute fact analysis in favour of particularism.

3. Armstrong on Particularism:

To this point we have seen that Armstrong's general objections to what he takes to be Nominalism do not hold against particularism (to the contrary those objections carry some weight against his own position), and that certain arguments which may be raised against a Quinean brute fact analysis of a thing's nature are also avoided by particularism. What then of the arguments which Armstrong directs specifically against particularism? Unfortunately (or fortunately, perhaps, for the particularist), those arguments are rather scanty. Since Armstrong takes his main opponents to be advancing one of the five doctrines which implausibly deny the objectivity of properties, he devotes over fifty pages to discussing those, and only ten pages or so to particularism.(I, Ch. 8) His strategy is first to attempt to dispense with certain reasonings which apparently support the particularist position, and then to advance arguments against the position. We will deal with the arguments in the order in which he presents them.

The first pro-particularist argument which Armstrong examines is the puzzle about multiple locations of universals. How can a single thing be in two places at the same time? Actually, Armstrong runs this argument together with the puzzle concerning creation and

destruction of universals. We have already canvassed, in the previous chapter, the problems which arise for the Realist with regard to the location, creation, and destruction of his universal posits. How can one thing in its entirety exist at two or more places at the same time? If the Realist insists, as Armstrong does, that properties can exist in more than one spatial location at once, then he faces the further problem of deciding whether universals can be created or destroyed. If he decides yes, then he is left with the unsavoury conclusion that, while destroying one instance of a universal leaves the universal untouched, destroying another instance (or the very same instance, if all the other instances happen to have been destroyed first) will destroy the universal. If the Realist decides that universals cannot be created or destroyed, then he is unable to explain where the universal exists when none of its instances happen to exist (unless, of course, he wishes to hold that the entire universal exists at every space-time point in the spatio-temporal region where there are no instances, in which case he might just as well accept that every universal exists at every space-time point, period). Particularism is not prone to any of these difficulties. For the particularist denies that anything can be in two or more places at the same time; his particularized properties exist in one and only one location at a given moment. As to creation and destruction, the particularist holds that destroying a blue thing really does destroy *a* blueness (which of course leaves all the other bluenesses untouched).

How does Armstrong deal with all of this? He claims that the argument begs the question, goes on to re-assert that universals can exist in more than one location at once (he doesn't bother to say anything about the creation / destruction issue), and concludes with:

> This reply to the Particularist argument does nothing to refute the Particularist view. But the reply seems to show that the Particularist has done nothing to refute the [Realist] view either.(I, 79)

Of course the argument in question is not an refutation of Realism! There is no conclusion in the argument which follows from uncontestable premisses, only puzzles concerning the empirical status of universals. But it is Armstrong, and not the particularist, who is begging the question here. The puzzles concerning the location, creation, and destruction of universal

properties are genuine ones, and they are ones which particularism does not give rise to. If Armstrong has no answer to these puzzles--and apparently he doesn't, since all he presents us with the assertion that universals can exist in multiple locations, and that the language of creation and destruction is "inappropriate" with regard to them--then so much the worse for him (and so much the better for the particularist).

The second line of argument which Armstrong considers is the causal attribution one which we have already raised against the Quinean. In the statement 'The weakness of the cable caused the collapse of the bridge',[40] we do not merely make reference to a property, which was the point that the Quinean had difficulty with. The problem for the Realist here is that the statement apparently makes reference to a *particularized* property. It is not weakness in general, not a universal weakness, which led to the collapse of the bridge, but rather the particular weakness of the particular cable. To put the matter more precisely, suppose that the same company which manufactured the faulty cable had manufactured another one with the identical structural flaws. Then, since the Realist holds that the weakness of the first cable is numerically identical with the weakness of the second cable, it should follow that the weakness of the second cable caused the collapse of the bridge. But this is clearly absurd.

Armstrong replies to this argument by introducing the notion of a "state of affairs", which he defines as "a particular's having a certain property, or two or more particulars standing in a certain relation." In other words, a state of affairs is a union of particularity (which is constituted by "total position", the four-dimensional area which an object occupies in space-time; see I, 118) with universality. Armstrong then goes on to say (or would say, if he had discussed cables rather than poor conditions) that the real cause of the bridge's collapse is the state of affairs which is the cable's having a property of weakness. It is not a universal property of weakness which brings about the collapse, nor a particular weakness as the argument above would have it, but rather a universal weakness in conjunction with the cable's total position.

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[40]Armstrong actually discusses 'His poor physical condition led to his collapse'. Nothing depends on sticking with Campbell's example.

It's not clear to me that this reply will work. The particularist might well respond that the total position of the cable is quite extraneous to the collapse of the bridge. Who really cares where the cable was manufactured (aside from bridge builders, of course), or where it will end up when the insurance adjusters are through examining it? The cause of the collapse is the existence of a particular weakness right at the place and time that the collapse took place. Perhaps Armstrong could reply to this objection by simply substituting the total position of a narrow temporal slice of the cable for the total position of the cable as a whole. Even here, however, the supposed numerical identity of exactly resembling properties seems to land the Realist in trouble. Since the weakness of the second cable above is still numerically identical with the weakness of the bridge cable, it follows that the weakness of the second cable (in conjunction, perhaps, with the area occupied by a temporally narrow four-dimensional slice of the first one) caused the collapse. It is difficult to see how the Realist can avoid such absurdities.

There are other examples which appeal to particularized properties as causes, and which don't seem to admit of easy analysis in terms of states of affairs. Consider: 'The identical charges of the pith balls causes them to repel each other.' As with the previous example, it is the particular charges of the two pith balls, and not charges in general or the charges of anything else, which causes them to repel. But unlike the previous example, this one states that there are two causes involved which are identical to each other. (Note the use of "identical to".) If it is numerical identity which is involved here, and if states of affairs rather than properties are causes, then the assertion must be analytically false. Two states of affairs cannot be numerically identical, since by definition every state of affairs involves a total position which is unique. Indeed, any suggestion that two or more causes may be identical is incoherent. The Realist has no very good explanation of why a scientist might appeal to the law that 'Identical causes have identical effects'. Armstrong would have to maintain that this is merely shorthand for 'Causes whose natures are numerically identical have effects whose natures are numerically identical'. The plausibility of this paraphrase aside, it should strike us as odd that

scientists run about uttering sentences which are not merely false, but *analytically* false. And once again, isn't it also a little odd that the electrical charge of a hunk of material on Pluto, together with the total positions of two pith balls on earth, is responsible for the pith balls repelling each other? Yet this conclusion follows from the Realist's contention that precisely resembling properties are numerically identical.

The third pro-particularist argument which Armstrong considers is one which seems to be suggested by Stout in "The Nature of Universals and Propositions". It depends upon two premisses: (1) A particular is nothing but the sum of its properties, and (2) distinct particulars can resemble exactly. If these two premisses are true, then it follows that the Realist's view of properties is false. For on the Realist's view two precisely resembling particulars would not be two but one.

Armstrong counters this argument by rejecting the first premiss. I shan't attempt to meet his reply here. In the first place, the argument in question seems to me to be unsound (though not for the reasons Armstrong offers). In the second place, we will have more occasion to examine the issues at stake in the next section. But a few remarks are in order. Premiss (1) in the argument above is plausibile only if we include among a particular's properties the relational properties which are constituted by its spatial and temporal relations to other things. This is because without the relational properties we would have no way of explaining why exactly resembling particulars were two and not one, except by insisting that the two were barely, numerically distinct. Premiss (2), on the other hand, is plausible only if we *don't* include relational properties in the respects of comparison between "exactly resembling" particulars. Two particulars may resemble precisely in all their non-relational respects. But if the two particulars resemble precisely in their relational respects as well, then at any rate we should never have any reason for supposing that they were two and not one. Hence the argument in question rests on an equivocation. If "properties" is taken to include relational properties, then the first premiss may be true (I shall argue in the next section that it is), but the second one seems false. If "properties" does not include relational properties, then the

second premiss is true but the first is apparently false.

So much for the pro-particularist arguments which Armstrong attempts to meet. The third one was an easy mark, since it rests on an equivocation. The first two, however, remain unanswered. Universal properties give rise to puzzles concerning their location, creation, and destruction which the Realist is apparently unable to solve. And relying on universal properties in causal attributions leads the Realist into such absurdities as that the weakness of a cable in Toronto is responsible for the collapse of a bridge in Edmonton.

What of the arguments which Armstrong raises against particularism? He considers first the question of how particularized properties may be grouped into types. Particularized properties are grouped together one way in concrete objects (the book in front of me has a particular colour, shape, texture, &c.), but they are grouped in another way into resemblance classes (e.g., the class of bluenesses of this particular shade, the class of bluenesses in general, the class of colours). Armstrong asks 'In virtue of what are these latter classes unified?', and proceeds to raise against particularism all of the old objections to Nominalism which we reviewed above.

I must confess to being baffled by Armstrong's line of argument here. Let us focus on his critique of resemblance as the class unifier. He states that the class of particular bluenesses of such and such a shade could not be unified by the resemblance of each to the others, for "it seems clear that the relation of resemblance depends upon the nature of the object, not the nature of the object upon the relation."(I, 85) What is puzzling is why Armstrong thinks that the particularist is attempting to reduce the nature of particular bluenesses to their resemblance to other objects. To say that ordinary "concrete" particulars *a* and *b* resemble in respect of their blueness is to say that there is a particular determinate blueness *f* in *a*, and a particular determinate blueness *g* in *b*, and *f* and *g* resemble each other. Of course the resemblance of *f* and *g* depends upon what they are! It depends upon the fact that they are particular bluenesses; if they were not, then there would be no relation of resemblance between them. Together *f* and *g* form a class which is unified by the resemblance of its members to each other. Where in all of

this is there so much as a hint that the nature of the objects in question, the particular bluenesses, depends upon their resemblance to each other, and not vice versa?

Armstrong apparently thinks that particularized properties must in turn have further properties--*universal* properties--which unite them into resemblance classes. This is clear when he writes that according to the resemblance analysis:

> An account of the unity of a class of things which all "have the same property" appeals to the resemblance which each of these things has to suitable paradigms. Relations of resemblance have been substituted for the original property, simply recreating the old problem of universals in a new guise. An account of the unity of this class of Particularist relations of resemblance must again appeal to the resemblance of these relations, and so *ad infinitum*.(I, 85)

Leaving aside Armstrong's re-introduction of the relation regress, his claim here is that particularized properties which belong to the same resemblance class all "have the same property". What, then, is the property which *f* and *g* have in virtue of their belonging to the same class? Once again we must be careful to distinguish between determinate and determinable properties. *f* and *g* are determinates, and they may or may not resemble exactly. If they do not, then it might be held that in addition to each of them being a specific shade of blue, they have a determinable property of being blue. The reply to this view is postponed until the next chapter. For now we will simply anticipate the discussion there once more, by noting that if the Nominalist is successful in dealing with the limiting case of precisely resembling determinates, determinable properties will not pose any special problems for him.

Let's suppose that *f* and *g* resemble exactly. In virtue of this exact resemblance they are members of a class of particular bluenesses of a certain shade. Does Armstrong suppose that, ***in addition*** to being bluenesses of this shade, each of the members of the class has the property of being just this shade of blue? The suggestion strikes me as exceedingly redundant. For *f* and *g* ***are*** determinate bluenesses; they do not, in addition, have the very same property (universal or otherwise) which they are. Similarly, we might say that a particular thing was a horse, or we might say that it had the property of being a horse. But we should be very surprised if someone informed us that the thing in question was a horse, and then went on to say that ***in addition*** to this it had the property of being a horse.

All this is not meant to suggest that particularized properties may not in turn have properties. In the next section the thesis will be advanced that particular properties have in turn spatio-temporal relational properties. But this much seems certain: a particular blueness does not in addition have the property of being that very same shade of blue. There is no further determinate property involved here which the Nominalist is constrained to provide a reductive account of in terms of resemblances; Armstrong is simply mistaken on this point. His mistake, I suspect, is based on the insistence that identity of property (*f* and *g* are the very same shade of blue) must be analysable in terms of numerical identity. We have already dealt with this issue in the previous chapter, arguing that qualitative identity as distinct from numerical identity is a defensible notion. We may add here that to insist against the particularist that identity of property is always numerical identity would seem to constitute a large case of question begging. For the fundamental contention of particularism is that two properties which resemble exactly are nevertheless numerically distinct. In the absence of any argument to show that this cannot be the case, it seems to me that the critique of particularism to this point is groundless.

Armstrong forwards two more arguments against particularism, which he thinks show that the doctrine is "incoherent". The first of these is "not decisive", but the second supposedly is. We will deal with the second argument first, since the reply has already been provided. Armstrong acknowledges that the argument depends upon the notion that a particular property, say *the yellowness of this lemon*, must have the further universal property *being a certain shade of yellow*. The *redness of this tomato*, on the other hand, does not have this universal property. Presumably the nature of the yellowness "fits" *being a certain shade of yellow*, while the redness does not. But since other yellownesses may fit *being a certain shade of yellow*, Armstrong concludes that the nature of the original yellowness is a repeatable universal, and so no further universal is required.

The reply here is straightforward. The original yellowness *is* a certain shade of yellow. It does not, in addition to being a yellowness of a certain shade, have the property *being a*

certain shade of yellow, any more than a horse has, in addition to its being a horse, the property of being a horse. May the nature of a particular yellowness be duplicated elsewhere? Certainly: to allow this is to say no more than that numerically distinct yellownesses may resemble exactly. So far from disallowing this, it is the fundamental fact on which the particularist analysis depends. Indeed, it seems to me that Armstrong's arguments against particularism to this point miss the mark entirely. The real issue here is whether or not property-instances may resemble exactly without thereby being numerically identical. So far Armstrong has said nothing which has a direct bearing on this issue.

Neither does Armstrong's final argument against particularism touch the issue of qualitative versus numerical identity. That argument questions the particularist account of why an ordinary object cannot have two precisely resembling properties. Where properties are construed as universals, it makes no sense to suppose that an ordinary particular could instantiate the same universal twice over. For since the second instance of the universal would be numerically identical with the first, there would only be one instance after all. If properties are construed as particulars, on the other hand, then ordinary particulars are collections of these particularized properties (Armstrong calls them "Stoutian particulars"). Why shouldn't an ordinary particular have among its constituents, say, two precisely resembling bluenesses? Armstrong concludes that this difficulty can only be met "by introducing an *ad hoc* principle forbidding exactly resembling Stoutian particulars to be parts of the same concrete particular."(I, 86)

Such a principle may indeed be *ad hoc*. But it is important to see that the Realist is in no better position than the Nominalist here. Consider: philosophers have often puzzled over why nothing can be two different colors at precisely the same place. Nothing, for example, can be both red and green all over. Different parts of a particular may of course be red and green; but the same part cannot be both colors at once. Why should this be the case? It does not seem to be an analytic truth that nothing can be two colors at the same place. Nor, apparently, does this fact follow from the nature of the Realist's posits. How will the Realist give an account of

the facts? It seems that he must simply acknowledge that there is only "room", so to speak, for one (universal) colour property to exist in a given place at a given time.

The following analogy may be helpful. If we consider an ordinary particular in abstraction from all of its properties (i.e., as a "bare" particular), then we might think of it as a number of receptacles into which can be fitted various properties. Whether the particularity of the object in question is constituted by Armstrong's "total position", with properties existing at the various spatio-temporal points, or whether we adopt a Lockean view of substratum in which properties "inhere", or whether we adopt some other view entirely, is neither here nor there for the purposes of the analogy. The point is that each of the receptacles of the bare particular is "labelled": there is a colour receptacle, and a shape receptacle, and a mass receptacle, and in general a receptacle for whatever other sorts of properties an ordinary particular may possess. Each of the receptables has room for one and only one determinate property of the appropriate kind. (I leave open the question of whether some of the receptacles may be empty.) Thus, if there is already, say, a property of being a certain shade of red in the colour receptacle, then there is no room for any other colour property, and hence the same (part of an) object cannot be both red and green at the same time.

It might be objected that this analogy is inappropriate, and that some other one would better serve the purposes at hand. But whatever analogy we adopt, the facts seem to speak for themselves. There is room for only one property of a certain kind at a given time and place, and this is true whether the properties are construed as universals or particulars. There is little arbitrariness involved, then, in the particularist holding that there is room for only one of two exactly resembling bluenesses in an ordinary particular's colour receptacle. At least, this position seems no more *ad hoc* than the Realist's admission that a particular cannot be an instance of more than one colour universal at the same time. And this in turn is only *ad hoc* to the extent that it follows not from the logic of universals but from a general fact about the world.

This brings us to the end of Armstrong's critique of particularism. I think we may safely conclude that his arguments fall far short of proving the doctrine to be "incoherent". Once again, the fundamental premiss of particularism is that properties which resemble exactly are nevertheless numerically distinct. Armstrong's critique does not even approach this premiss directly, let alone prove its incoherence. But if the premiss is allowed to stand, then the particularist does not have any trouble building up resemblance classes without the aid of universals. Given the difficulties which the Realist is saddled with concerning the location, creation, destruction, and causal role of universal properties, the scales would seem to be weighted heavily in favour of particularism.

4. Particularized Properties:

We turn our attention now to the nature of properties construed as particulars. The considerations to be raised here do not directly constitute an argument in favour of Nominalism and against Realism. Enough has been said in what has gone before to clarify the main issues of contention between the two parties, and to make it clear that the particularist version of Nominalism falls prey neither to Armstrong's various anti-Nominalist and anti-particularist attacks, nor to the substantial difficulties with which Realism is afflicted. Nonetheless, important questions remain concerning the nature of particularized properties. For if universals are manifestly an odd sort of entity, it is sometimes thought that particular properties manifest peculiarities of their own. Stout and Williams refer to particularized properties as "abstract particulars", in contrast to the ordinary or "concrete" particulars which possess them. They do not mean by this, of course, that abstract particulars have a peculiar sort of existence which transcends space and time. Rather, particular properties are abstract in the sense that they may be considered "in abstraction" from their concrete particulars. Yet we noticed above that Quine fails to distinguish between particular properties and universal properties, herding them together under the heading of "abstract objects". Is there some aspect of properties construed as particulars which warrants Quine's treatment in this regard?

Particularized properties have definite spatio-temporal locations, just as ordinary particulars do. A particular property may be moved from place to place, but it exists in one and only one place at a given time. Properties cannot generally be moved about in complete independence from other properties; they occur in compresent bundles--that is, in ordinary particulars--which move about as a whole. But properties may at least vary independently of each other: the colour of a thing may vary independently of its volume, shape, and mass, etc. And some properties, at least, apparently remain relatively unattached to a given ordinary particular. Heat properties, for example, may move about independently of other properties, as when heat energy is transfered from one ordinary particular to another.

Particularized properties occupy relatively unproblematic roles in the causal affairs of the world. They may act, and be acted upon. They may come into existence at some point in time, and they may cease to exist at a future time, without any of the puzzles which accompany the positing of universal properties. Particular properties are also subject to change, whereas universals are not. Particular properties may change gradually, in which case we are likely to hold that it is the same property which is being slowly transformed; or they may change abruptly, in which case we are rather more likely to hold that the old property has been replaced with a new one. Perhaps most importantly, the status of particular properties as full-fledged members of the causal order means that they obey some analog of Newton's laws of inertia: they remain stable unless acted upon, and when acted upon they change. In all these respects, at least, particularized properties share the same realm of being as ordinary particulars, and deserve to be distinguished from universals.

But perhaps there is something deeper in Quine's refusal to make the distinction in question. One reason he expresses for attempting to supplant talk of properties (he calls them attributes) with talk of classes is that there are no adequate identity conditions for the former.[41] It is not at all clear that Quine means this criticism to apply to particularized properties as well as universals. He states, for example, that "no adequately intelligible

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[41]See, e.g., *Word and Object*, p. 209.

standard [for the individuation of attributes] presents itself short of mere coextensiveness of instances,"[42] and so goes on to explicitly adopt this identity criterion by rejecting attributes in favour of classes. We discussed in Section 2 of this chapter the difficulties involved in the Quinean's move from properties to classes. It is not just any and all heterogenous classes which will suffice to supplant properties. Resemblance classes are required, and the Quinean's refusal to quantify over properties apparently prevents him from adequately specifying such classes. In any case, the issue here is the problem of individuating properties, and not the Quinean's difficulties in defining resemblance classes. When Quine claims that the only adequate identity condition for attributes is coextensiveness of their instances, he clearly has in mind attributes taken as universals. Is there a problem with individuating particularized properties as well?

I can think of a few possible reasons for supposing this to be the case. First there is the problem of determining, with regard to at least some particular properties, whether there is just one thing in question or more than one. Suppose, for example, that we have a blue object in front of us. (Let the object be blue right through, rather than just on the surface.) The particularist would say that there is a particular blueness here. Now suppose that we slice the object in half. Are there now two bluenesses in front of us? Presumably there are; yet it seems odd to suppose that we created something completely new simply by dividing an object into two parts. Was the original blueness not really one in the first place, but in effect two bluenesses which were merely conjoined?

The obvious reply here is that this is no more of a problem of individuation with regard to particularized properties than it is with regard to the ordinary particulars which the Quinean permits himself to quantify over. Was the blue object originally one or two? If we consider it to be a swarm of atoms, then it is "really" very many objects. And the atoms in turn are collections of more minute things, and so on. The bottom line is that individuation of properties, as of ordinary particulars, is for us as much a matter of spatio-temporal continuity and pragmatic considerations as anything else. Perhaps the universe is composed of

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[42]"Soft Impeachment Disowned", p. 451.

fundamental, indivisible particles which are the only things that truly deserve the name "one". If this is so, then presumably those fundamental particles have properties which could serve to provide a reductive account of more familiar macro properties such as colours, and in doing so specify a minimal array of the basic elements of the universe necessary for reflecting a certain wavelength of light. However all this may be, no problem in individuating particular properties has so far arisen which does not arise also with regard to the individuation of ordinary particulars.[43]

In a similar vein, it might be supposed that changes in particular properties produce a problem of individuation. For the Realist, whether his universals are conceived of as transcendent or immanent entities, the issue of qualitative change presents a genuine problem. Since universals are not subject to change, any variation in a property of an ordinary particular, however slight, entails that the particular must instantiate a new universal or universals. Consider, say, the case where a blue object remains in strong sunlight for a period of time, and its colour gradually fades to a bleached white. If we suppose that there is an infinite gradation of wavelengths which the object reflects as it in fades from blue to white, then the Realist must somehow account for an infinite number of universals racing through the object in machine-gun succession. The particularist, on the other hand, need hold only that there is one thing involved which has undergone a gradual transformation. How much may a particular property change before it is to be counted not as the same thing but as an entirely new one? The question is no different in principle from asking how much an ordinary concrete

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[43]On the possible scientific reduction of particularized properties we may compare Campbell, "The Metaphysic of Abstract Particulars", p. 486.:

> There is no straightforward correlation between distinct *descriptions* and distinct tropes. That predicates may not go hand-in-hand with tropes is important, for therein lies the possibility of reduction, exhibiting one trope as consisting in tropes which before the discovery of the reduction would have been considered "other" tropes. Reduction is the life and soul of any scientific cosmology. Reductions involving elements in familiar human-scale material bodies provide the best of explanations why tropes ordinarily occur in compresent bundles which cannot be dissociated and whose members resist independent manipulation.

The Nominalist will concur with Armstrong at least in this much: it is up to science to determine what sorts of ultimate properties there are, if any, and the relationships between them.

particular may change before it is to be counted a different thing, and the answer is the same. Whether we choose to view ordinary particulars and particular properties as retaining their identity over a certain period of time, or whether we view them as being destroyed with new entities coming into existence, depends in large part on the rate and degree of change which they undergo during that period. Once again there is no problem with the individuation of properties here which does not also arise with the Quinean's exemplary existents. And this is only a problem insofar as we suppose it makes any difference to the way the world is whether we take the things in question to be one or two.[44]

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[44]Incidentally, the Realist would do well to reflect for a moment on ordinary judgements of identity over time. If we judge that an object is numerically identical with another, then a reasonable assumption would be that, in this case at least, the properties of the former are numerically identical with those of the latter. But with regard to the identity of a thing over time, the properties of a thing are not even qualitatively identical to each other. Science tells us that the minute structure of ordinary particulars is in a constant state of flux, and hence the macro properties of a thing such as colour, shape, and mass are continually varying by minute amounts. Since universals themselves cannot be held to change, the minute variations in the properties of things can only be accounted for by the Realist in terms of the disappearance of instances of some universals, and their replacement by others. This leads to the peculiar consequence that a thing which is numerically identical with itself at an earlier time--even a fraction of an instant earlier--is composed of or is an instantiation of a completely different set of universals. Armstrong would hold that members of the later set of properties are partially identical with those of earlier set, since the members of the two sets will in general have a high degree of resemblance to their counterparts, and he analyses all resemblances in terms of partial identities. Still, partially identical universals are nevertheless distinct entities (cf. II, 123), and hence under perfectly normal circumstances one and the same ordinary particular will be composed of sets of entities each of whose members is numerically distinct from moment to moment.

Metaphysical Realism is best suited to a static world view. (Indeed, it is often held that one of Plato's motivations for positing unchanging Forms was as a means of explaining how knowledge was possible of a continually changing world.) Realism derives much of its appeal from the implicit supposition that the properties of things are relatively fixed over time. Enduring objects are viewed as being composed of groups of enduring properties. Though some or all of a thing's properties may change through its history, the bulk of the parts remain from moment to moment, and the task thus becomes one of explaining how different particulars may have these enduring properties in common. When we remind ourselves that such a static view is simply unacceptable, that the world is in a constant state of transition along countless dimensions, and that these transitions are in general too slight to show up in ordinary language, most of the illicit appeal of Realism disappears. The thesis that enduring objects are composed of enduring properties is a workable one only if properties are allowed to change, and this much universal properties are unable to do.

Realists have sometimes claimed that they see the world as more unified than the Nominalist does. (Cf., e.g., Armstrong, I, 109.) This view seems to me to be

There is one further difficulty which might be thought to arise concerning the individuation of particularized properties. This problem is brought out by Goodman's "grue" and "bleen" examples.[45] He defines the predicate 'grue' as applying to objects just in case they are examined before a time *t* and are green, or are not examined before *t* and are blue. Similarly, an object is bleen if it is examined before *t* and is blue, or is not so examined and is green. These definitions are designed to bring out a problem with regard to the projection of inductive hypotheses, however, and do not get at the problem of individuation of particularized properties which we are dealing with here. Thus we shall adopt alternative definitions which are generally held to indicate the same inductive problem, and which are better suited to the current discussion. An object is grue, we shall say, if and only if it is green before time *t* or blue afterwards, and it is bleen if and only if it is blue before *t* or green afterwards. Now, suppose that the object *a* reflects wavelengths of light which qualify it for application of the predicate 'blue' before time *t*, and that it remains unchanged in colour after *t*. This can be expressed in terms of the alternate colour predicates by saying that before *t* the object is bleen, but that at *t* its colour changes to grue. The problem is simply this: are we dealing with one property here, or two? If we rely on our ordinary colour predicates as indicators, then there is only one property involved, a blueness. The alternative predicates, however, suggest that there are two properties involved, a bleenness and a grueness. Which is/are the real property or properties?

As Goodman points out, it will not do to object that 'grue' and 'bleen' are complex disjunctive predicates, while 'blue' and 'green' are not. For the two sets of colour predicates are apparently interdefinable, and which set is complex depends upon which set we take to be

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[44](cont'd) mistaken, however. What we should say is rather that the Nominalist sees the world as less constant, more variable, than the Realist does. Let things resemble in their various respects as much as you will. Without such resemblances thought and language would be impossible. But thought and language tend to isolate and freeze resemblances, much as a photograph may capture an instant in the history of the universe and hold it for future contemplation, while the world itself--including the photograph--moves on in an ever-changing kaleidoscope of coalescences and divergences (that is, similarities and differences). The postulation of universals only serves to obscure this (true) picture.

[45]See *Fact, Fiction, and Forecast*, 4th edition (Harvard University Press, 1983), pp. 74-80, and Hilary Putnam's Foreword in the same volume, pp. vii-xvi.

primitive. If 'grue' and 'bleen' are taken as primitive, then for example 'blue' may be defined as the disjunctive predicate 'bleen before time *t* or grue afterwards'. Hence, if the particularist wishes to hold that the blueness in the example above is the real, objective property, and that the "bleenness" and "grueness" are fakes, it seems that he must discover independent grounds for taking our normal colour predicates as primitive. For the fact that we *do* take them to be primitive is not a sufficient guarantee that some other predicates do not better pick out the objective properties of things. A hard-core relativist such as Goodman might suggest that what the grue and bleen example shows is that there is no adequate identity criterion for objective properties, and hence that there is no good reason to suppose that properties as the particularist conceives of them have an objective existence at all.

This last conclusion would be a bit hasty, however. We may well agree that there is no purely syntactical way of distinguishing predicates which apply to real properties from those which don't. But there is no need to limit ourselves to syntax here. We stated above that objective particularized properties are full-fledged members of the causal order, and this feature, I maintain, is a necessary mark of the real. The point may be alternatively expressed by saying that real properties obey inertial laws: they remain constant unless acted upon, and when acted upon they change. Greennesses and bluenesses obey such inertial laws; gruenesses and bleennesses simply do not. In the case of the example above of *a* which retains its shade of blue throughout its history, taking the predicates 'bleen' and 'grue' to apply to objective properties leads us to the conclusion that one property, a bleenness, is destroyed at time *t*, while another one, a grueness, comes into being. But all of this occurs in the absence of any causal interaction; the bleenness simply disappears and the grueness pops into being completely of their own accord.

It would seem, then, that the particularist has at hand a ready reply to the question of which of 'blue', 'green', 'grue', and 'bleen' apply to objective properties. If gruenesses and bleennesses are taken to be objective properties, then apparently we are committed to the existence of entities which have a certain independence from the causal affairs of the world.

Since we made the simplifying hypothesis that *a*'s colour remains absolutely fixed before and after *t*, it follows that gruenesses and bleennesses may be created and destroyed in the absence of any detectable difference in the world. The conclusion is that, whatever the merits of 'grue' and 'bleen' as a means of demonstrating the impossibility of formulating purely syntactical criteria for the projectibility of inductive hypotheses, the Goodmanesque predicates do not constitute a problem for the particularist.

My more general conclusion here is that particularized properties do not present any special problems of individuation. At least, no problems are presented which are not similarly present in the individuation of ordinary particulars; and these problems, I suggest, are more a question of the practical wisdom of counting thing as being the same or different as it suits our purposes accordingly, than they are issues concerning how the world is.

At this point I wish to consider for a moment the question of what particulars are "made of". We noticed in Section 3 of this chapter that Armstrong takes an ordinary concrete particular to be a union of particularity, constituted by the particular's "total position", the four-dimensional area which it occupies in space-time, with a certain set of universal properties. The problem with this suggestion, as I see it, is that it seems to present us with needless redundancies. For *in addition* to having total positions, Armstrong supposes that particulars stand in spatio-temporal relations to each other. Such spatio-temporal relations are in his view universals--dyadic, triadic, or in general *n*-adic properties--and hence cannot be confused with objects' total positions. The question is simply this: do we require *both* total positions and relational properties in our account of the world?

That we must allow spatio-temporal relations their place among the furniture of the universe seems clear. For such relations make a difference to the workings of the world. The gravitational force which an object exerts on other objects is inversely proportional to its spatial separation from them. Hence the universe cannot be adequately described without reference to the spatio-temporal relations holding among things.

Such relations carry with them certain puzzles. The foremost of these is that spatio-temporal relations do not seem to be attached to ordinary particulars in the way in which colour, shape, mass, and the like are. Williams suggests briefly that the spatio-temporal relations of things may be thought of as properties internal to the related objects considered as a complex whole, which perhaps goes some way towards explaining why relations are not intrinsic to objects in the way in which their monadic properties are.[46]

However all this may be, we apparently require the inclusion of spatio-temporal relations in our analysis of the world, and so the question remains: do we require total positions as well? I suggest that we do not, and that the thesis that an ordinary particular is a union of a set of properties with a total position should be abandoned. In addition to being redundant, total positions seem also to involve an *a priori* commitment to absolute space or space-time.[47] Total positions cannot be conceived of in a relativistic fashion; for in this case their specification would amount to nothing more than a explicit duplication of the spatio-temporal relations holding between particulars. Thus total positions, if they are to be distinct from spatio-temporal relations, must be conceived of in absolute terms. Since the jury is still out on the question of whether space or space-time is absolute or relative,[48] it seems to me that the appropriate course of action is to adopt a view of particularity which does not legislate one way or the other. While a relativist conception of particularity is compatible with

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[46]"On The Elements of Being: I", p. 8. Williams also suggests that ordinary properties may be further resolved into structural properties which are a function of the relation of more minute elements of the particular which possesses the property. This suggestion seems to have some plausibility. The colour properties of a thing, for example, are presumably analysable in terms of a micro-structure which causes the thing to reflect certain wavelengths of light. Shapes and volumes, too, would seem to admit of resolution into relations among the more minute parts of the objects which possess them. Armstrong considers the hypothesis that all properties are structural properties which are resolvable *ad infinitum* into relations between more and more minute parts of objects, and concludes that this is a distinct possibility.(II, 83)

[47]Campbell makes the same point, although not quite in this fashion, in "The Metaphysic of Abstract Particulars", p. 483.

[48]Most scientists today lean towards a relativistic conception of space-time. But the issues have not all been resolved. For one thing, it seems that an account of inertial frames remains a thorn in the side of relativists. See Ferrel Christensen, "The Problem of Inertia" in *Philosophy of Science* 48 (1981), pp. 232-47.

there being an absolute space-time, the converse is not the case. Hence I suggest that we reject absolutism in favour of a relativist account of the particularity of things, if at all possible.

I maintain, then, that a concrete particular is a collection of properties (particular properties, of course) at a certain location, where the location is conceived of in relativistic terms as a complex property composed of all the spatio-temporal relations which the object in question bears to other things. What this amounts to saying is that an ordinary particular is nothing but the sum of its properties, including its spatio-temporal relational properties. The thesis which I am adopting is thus one which Armstrong and others refer to as a "bundle theory": a concrete particular is simply a bundle of properties, relational and non-relational.[49]

Where properties are construed as universals, bundle theories have the consequence that the principle of identity of indiscernibles is true; since the various instances of a property are held to be numerically identical, concrete particulars which have all of their properties in common are one and not two. If properties are construed as particulars, on the other hand, it might be possible to maintain a particularized form of the bundle theory while rejecting the identity of indiscernibles; since each of the constituents of a concrete particular is distinct from the constituents of other particulars, two concrete particulars which resembled exactly in all of their properties, including relational ones, could presumably be held to be nevertheless distinct. (They would be barely numerically distinct.) But this view seems counter-intuitive. It has the consequence that what we would ordinarily term a single object at a specific location may in fact be two (or even an infinite number of) precisely resembling objects in exactly the same place, even though we should never have any means of detecting whether there was one object or more than one. Perhaps more importantly, the view in question totally neglects our actual practices in determining numerical distinctness. Concrete particulars are determined to be

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[49]I make no distinction here between relations and relational properties. If we consider a single spatio-temporal relation holding between two particulars *a* and *b*, then the relation apparently belongs as much to *b* as to *a*. The relative location of *a*, however, is a composite of all the relations which it bears to other particulars, and most of these have nothing at all to do with *b*. Speaking of a relation as belonging to just one of the related terms--that is, speaking of a relational property--need reflect nothing more than the fact that the relation in question is a member of a set of relations all of which are attached to a given particular.

numerically distinct if and only if they have different relative locations. (Since the particularist holds that particular properties are themselves particulars, these considerations may be extended to properties themselves: how do we know, say, that a particular blueness in front of us is not really one thing but perhaps an infinite number of precisely resembling things in exactly the same place? How do we actually determine that two bluenesses are two and not one, except by differences in their spatio-temporal relations?)

I shall be maintaining, then, a version of the identity of indiscernibles: if two concrete particulars resemble exactly in all of their properties, both non-relational and relational, then they are not two but one. Armstrong argues that the identity of indiscernibles cannot be a necessary truth (I, 91-7), even if we include among a thing's properties its spatio-temporal relational properties. This is because of the logical possibility of there being distinct but exactly resembling space-times, or entities such as angels and the like which may resemble exactly in their non-relational properties, but which don't exist in space-time at all, and hence can't differ in respect of their spatio-temporal relations. But these logical possibilities are no less a problem for the thesis that particularity is constituted by total position than they are for the principle of identity of indiscernibles. Armstrong is forced to conclude that total position "does, as a matter of fact not of logic, constitute the particularity of spatio-temporal particulars."(I, 127) I conclude that there is no additional problem involved in holding that concrete particulars are nothing but bundles of (particular) properties, non-relational and relational, and that as a matter of fact the principle of identity of indiscernibles is true (a point which Armstrong acknowledges; see I, 97).

Hence concrete particulars which are distinct fail to resemble precisely in at least one respect--i.e., in respect of their location, or spatio-temporal relational properties. As to the various logical possibilities which legislate against the necessary truth of the identity of indiscernibles, believers in such possibilities may be left to their own resources in accounting for the distinctness of the entities in question. As Campbell puts the point, "To concede that there can be non-spatial particulars to the extent that they belong in an array analogous to space is

generous enough toward such dubious items [as transcendent gods, Thomist angels, Cartesian minds, Kantian noumena, and Berkeley's entire ontology]."[50]

Doesn't acceptance of the principle of identity of indiscernibles argue for Realism and against Nominalism? The argument might run as follows: Let two concrete particulars resemble precisely in all of their non-relational properties, and in all of their spatio-temporal relations except for one. (This state of affairs is perhaps not possible in any universe with more than two objects, but that need not detain us.) The particularist would hold that all of the precisely resembling properties of the two objects are numerically distinct. Now suppose that we remove through a thought experiment the one point of divergence between the two particulars, the differing spatio-temporal relation. According to the principle of identity of indiscernibles, the objects are in this case not two but one. It follows that removal of the one point of divergence has the consequence that all of the other properties of the two objects are not merely qualitatively identical, but that they are actually numerically identical. But if this is so, why not hold that the properties were numerically identical in the first place, even when the two concrete particulars were numerically distinct due to the presence of a diverging relational attribute?

The solution to this puzzle lies in answering the question of what constitutes the particularity of qualitatively identical but nevertheless distinct properties. Apparently the particularist must hold either that they are barely, numerically distinct, which leaves open the possibility that what we would normally think of as one blueness might be two or a million bluenesses in exactly the same place; or he must hold that resembling properties are distinct through being at different relative locations. This latter course, which really amounts to extending the principle of identity of indiscernibles to include properties as well as concrete particulars, seems clearly preferable, the more so because it falls into line with our actual practices in determining when bluenesses and the like are distinct. Now, notice what happens when we remove through a thought experiment a relational property which is the sole point of

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[50]"The Metaphysic of Abstract Particulars", p. 486.

divergence between two qualitatively identical ordinary particulars. What we have actually done is removed the sole point of divergence between the resembling properties of the two particulars. It is not as though removal of something extraneous to the distinct properties causes them to become numerically identical; the removal of the differing relational property is a removal of the very thing--the difference in relative location--which constitutes the distinctness of the particular properties themselves.

In this sense the relational properties of a concrete particular are dependent upon the relative location of the particular properties which make up the concrete thing. In the previous section, it was argued that particular properties do not have the very same property which they are. A blueness of a certain shade, for example, does not in addition have the property of being just that shade of blue. But this does not preclude properties from in turn having other properties. The thesis being advanced here is that particular properties do indeed have further properties--namely, spatio-temporal relational properties--which underwrite their distinctness. The distinctness of concrete particulars is in turn a function of their differing relative locations, and these are dependent upon the relative locations of the particular properties of which the concrete things are composed. (Along the same lines, I would argue that the applicability of the principle of identity of indiscernibles to concrete particulars is parasitic upon its applicability to particular properties.)

Spatio-temporal relational properties themselves are a special breed of property. This feature is best brought out by noticing that, on the principle that a property cannot have the very same property which it is, spatio-temporal relational properties do not have themselves as properties. The property 'two meters to the north of *a*', for example, is not located two meters to the north of *a*. (This is especially clear when we remind ourselves that relational properties are simply a one-sided view of the relations holding among things. If *a* and *b* stand in a certain spatio-temporal relation, the relation is presumably not located either in *a* or in *b*.) We may note that the principle involved here helps to account for the extrinsic character of relational properties, as compared to the non-relational properties of things. The property of being two

meters to the north of *a* is possessed by an object *b* which is so located. But though *b* possesses this property, the property itself cannot be located where *b* is, on the grounds that a property cannot have the very same property which it is.[51]

Though I shan't bother to argue the point here, I think it can be maintained with some plausibility not only that spatio-temporal relational properties do not have the same property which they are, but that they do not have any other properties at all, including other relational properties. The special character of spatio-temporal relational properties lies just in this: that whereas non-relational properties have relative locations, relational properties do not have locations, but rather *are* (components of) locations. (We might wish to speculate that spatio-temporal relations considered in their totality constitute the very fabric of space-time, which similarly cannot be said to have a location.)

We seem to be left with a problem, however. If non-relational properties may be distinguished in virtue of their different relative locations, how are different spatio-temporal relations to be distinguished? Must we hold that they are barely distinct? (Cf. Armstrong, I, 118-19.) I think that the solution here lies in arguing that applicability of the principle of identity of indiscernibles to particular properties does not depend upon their possession of further properties. Two bluenesses may resemble exactly in respect of their shade of blue, but the contention here has been that to view this respect as a property which the bluenesses possess in addition to their being precisely determinate bluenesses is simply to multiply properties beyond reason. Similarly, two compresent properties--say the shape and colour of the same concrete particular--are dissimilar or discernible, though they do not seem to differ in respect of properties which they possess, since they possess the same relative locations, and they do not have as properties the very same shape and colour which they are.

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[51]Incidentally, Armstrong would not consider being two meters to the north of *a* to be a property at all, since for him all true properties must be completely universalized, and this one makes essential reference to a particular thing (namely, to *a*). In his words, 'being precisely two meters to the west of *a*' is not a "pure" predicate (see II, 15). But this need not worry the Nominalist. Since properties are supposed to be particulars in any case, I see no great problem in holding that a real property makes essential reference to a particular.

If these considerations can be extended from non-relational properties to spatio-temporal relations, then the principle of identity of indiscernibles will provide us with an identity criterion for relational properties as well, even though the latter do not in turn possess properties. I think this can indeed be accomplished. It seems quite natural to say, for example, that the property 'two meters to the north of *a*' resembles 'four meters to the north of *a*' more than it does 'ten meters to the north of *a*', or that it resembles 'two meters to the north-west of *a*' more than it does 'two meters to the west of *a*'. But these resemblances are not due to further properties which the spatio-temporal relations possess. (Lest it be imagined that the respects of resemblance here really are further properties of the relational properties involved, let it be emphasized once again that we are dealing with determinate properties. The Nominalist does not believe that there is any other kind of objective property. If the respects of resemblance of the relational properties in the examples cited--namely, magnitude and direction of separation from an object--were taken to be properties of the relational properties involved, then the relational properties themselves would have to be held to be determinables such as 'having a separation from *a* in a direction'. Specification of a determinate direction and magnitude is a necessary condition for the description of any real spatio-temporal property.)

It seems, then, that it makes perfectly good sense to speak of resemblances among spatio-temporal relations, even though such relations do not in turn have properties. If this is true, then presumably it makes sense to speak of the limiting case of exact resemblance among these relations, and hence the identity of indiscernibles can provide us with an identity criterion for relational as well as non-relational properties. Properties, both relational and non-relational, which resemble precisely in all of their respects are numerically identical. Or more to the point: properties which are dissimilar in one or more respects--the respects need not in turn be properties--are numerically distinct.

Application of the principle of identity of indiscernibles to relational properties has a very interesting consequence, which may be brought out by noting a certain looseness in the notion of "precise" or "exact resemblance". It has been stated on more than one occasion that

exactly resembling properties may be nevertheless distinct, if they have distinct relative locations. Obviously exact resemblance cannot be understood here as exact resemblance in every respect. What it amounts to is exact resemblance in every respect *except* the respects which are attributable to further properties of the particular properties involved. Now, spatio-temporal relational properties which resemble exactly in this sense cannot diverge in respect of further properties, simply because they do not themselves possess properties. It follows that while there can be numerous exactly resembling bluenesses, for example, there can never be two exactly resembling but nevertheless distinct spatio-temporal relational properties. Hence the absence of further properties in spatio-temporal relational properties provides them with a certain uniqueness which is unmatched by non-relational properties.

A further consequence of this is that non-relational properties which have the same relative locations--that is, properties which are components of the same concrete particular, such as a particular shape and size and color--have spatio-temporal relational properties which are actually ***numerically*** identical. Of course, this is just what is required in maintaining that concrete particulars are bundles of properties existing at the same relative location. For what we want to say is that the properties have numerically the same location, and not that they have precisely resembling but perhaps distinct locations. It is comforting to note that the theory as it has been developed here has the consequence that the notion of precisely resembling but distinct locations is an incoherent one. As a bonus, it seems that we have at hand a possible explanation of the unity of compresent bundles of particular properties: each of the properties of a concrete particular has in turn a component--a location, conceived of as the sum of all of the spatio-temporal relations which the original property bears to other things--which really is numerically identical with a component of each of the other properties which constitute the particular.

There is one final issue to address. No doubt the objection will be raised, against the view being presented here, that concrete particulars cannot "merely" be bundles of properties. For properties are too insubstantial, too ethereal, to exhaust the concrete things of the world.

The objection, I think, is based on a view of particular properties in abstraction from the concrete objects of which they are a part. When we consider properties as they normally--I would say always--occur, in more or less inseparable bundles, they begin to look much less ethereal. Whatever the ultimate explanation is of the inseparability of mass, velocity, electrical charge, volume, shape, colour, &c., it would seem that when we have specified determinate quantities of things along these various dimensions, there is very little left to say about the things which populate our world. But perhaps this reply to the objection is insufficient. Musn't there be something which the various qualities inform, or something in which they inhere? The pull towards an Aristotelian prime matter or Lockean substratum is very strong here. It may be useful to recall that according to the law of mass/energy conservation, matter--the ultimate "stuff" of the universe, of which concrete particulars are composed--can be directly converted to energy, which will in turn show up as variations in the properties of other things. The energy produced is directly proportional to the mass consumed; and that mass, of course is a *property* of the object destroyed. Is it so implausible, then, to maintain that concrete particulars are nothing but the sum of their properties?

The discussion in the latter part of this section has been highly speculative. The material at the beginning of the section, on the individuation of particularized properties, I take to be an integral part of the theory of particularism (though largely of negative import in the debate between the Nominalist and the Realist: it is important to notice that particular properties do not suffer the peculiarities of universals). But the latter material represents my own attempt to work out the doctrine of particularism in more detail, and is not essential to the doctrine *per se*. No doubt many particularists would reject the arguments presented, Locke not least among them, assuming that he actually held the substratum view which is commonly attributed to him. No doubt, also, many contemporary philosophers would find the discussion far too abstract, too "metaphysical", for their tastes. But the material is important, I think, both because Armstrong's discussion of these issues apparently involves certain difficulties; and because there is much that is instructive in working through a theory, simply to see where it

leads.

IV. RESEMBLANCE

1. Resemblance or Identity?:

The resemblance of concrete particulars represents, to borrow a favorite notion of Armstrong's, a "Moorean fact", a compulsory question on the Realist's examination paper. It was noted in Chapter II that sameness of property admits of degree, which is just what we would expect if qualitative identity is merely the limiting case of qualitative similarity or resemblance. If this is true, then it seems that the Realist is forced to extend his postulation of numerical identities underlying qualitative identities to cover cases where resemblances are less than exact as well. For if sameness of property, where the sameness is incomplete, does not require the postulation of universals, why suppose that universals are necessary with regard to the limiting case of exact resemblances? Hence, a reductive analysis of degrees of resemblance is a necessary component of the Realist's program. To put the point slightly differently: if the Realist is unable to analyse less than exact resemblances in terms of numerical identity, and is thus forced to accept that such resemblances hold between properties which are numerically distinct, then there can be no reason not to adopt this conclusion in the case of exactly resembling properties as well.

Note that these considerations apply as much to Transcendent Realism as to the Immanent variety. If the Realist cannot make out a good case for holding that a less than exact resemblance among objects is dependent upon a universal which is common to the resembling objects--whether universals are supposed to be identical with property instances, or whether they live apart in a transcendent realm yet somehow support property instances and underwrite their resemblance--then his case falls apart with regard to exact resemblances (which is to say that he has no case at all). The analysis of resemblance is thus the single most important problem facing Realists of all stripes.

It is sometimes supposed that Transcendent Realism wields a large advantage over Immanent Realism with respect to degrees of resemblance. Briefly, the Transcendent Realist

may hold that there are *degrees of instantiation* of universals. Thus two instances of the transcendent universal 'blueness', for example, may fail to resemble exactly if one of them is a less perfect instantiation of the universal than the other is. While this solution to the problem of degrees of resemblance may have some plausibility with regard to colour properties, however, it is difficult to see how it may be applied to other sorts of properties. *a* may resemble *b* more than *c* in respect of their mass; but this is presumably not because two of them are better instantiations of a universal 'mass' than the other is. For what would be a perfect instance of mass? The notion of degrees of instantiation does not appear to be a helpful one here, and hence the critique to follow should apply as much to Transcendent as to Immanent Realism.

It seems that there are two possible means by which the Realist can provide an analysis of resemblance in terms of numerical identity. The more traditional one holds that objects which resemble, say, in respect of their colour, but which do not resemble precisely in this respect, resemble each other in virtue of possessing a further *determinable* property. Objects which are different shades of blue, for example, are supposed to have, in addition to the property of being a certain specific shade of blue, the further determinable property of being blue. It is held that the blue objects resemble in virtue of their possession of this determinable property, while their qualitative distinctness stems from the possession of differing determinate properties. Hence qualitative similarities and differences line up nicely with the possession of numerically identical and numerically distinct properties.

The Nominalist does not believe that there are objective determinable properties, and Armstrong shares this intuition. Every real property, he thinks, is precisely determinate: "The determinate shades of red and the other colours are properties, but the determinables, *redness* and *colour*, are mere classes of properties."(I, 61) The Nominalist will concur with Armstrong in this, the difference being that whereas the Nominalist takes the uniting principle of such classes to be unanalysable resemblances among the members of the class, Armstrong thinks (as any good Realist must) that these resemblances can be analysed in terms of numerical identity.

The arguments which Armstrong advances against determinable properties depend on the contention that properties are universals. (See II, 117-20.) But a few considerations may be raised here which do not presuppose universals. In the first place, if there are determinable properties, then it would seem that the objects which possess them must possess an infinite number of them. Blue is a determinable relative to navy and aquamarine. But navy and aquamarine in turn stand as determinables to the more determinate shades which fall under them, and so on. In this way we may distinguish levels of determinability, or conversely, levels of determinateness. The levels may be thought of as deeper and deeper levels in a branching structure, with the most determinable properties towards the top of the tree and precisely determinate properties at the bottom. (I am ignoring here the problem of overlapping determinables.)

There is a good *prima facie* case to be made for supposing that there are an infinite number of levels along any branch of a determinable colour tree. (This should apply with little modification to other determinables such as shapes and lengths, as well.) Each level of a branch, except the bottom level of absolute determinates, represents a range of shades. Such ranges are presumably infinitely divisible, the wavelengths of light which might be reflected by an object which falls within the range being infinite in number. The unbounded divisibility of each range of shades thus leads to each branch of the tree being composed of an infinite hierarchy of determinable properties.

If this is true, then it would seem that any object which possesses a precisely determinate shade of colour must also possess an infinite number of determinable properties of successively higher levels. It would not do to suppose that objects possess only some of these determinable properties; it cannot be maintained, for example, that blue objects possess only their determinate colours plus the single determinable property of being blue. For this would fail to dinstinguish degrees of resemblance among blue things. Consider three objects *a*, *b*, and *c*. Let *a* and *b* be slightly different shades of navy, and let *c* be aquamarine. The similarity of *a* and *c* is accounted for by their sharing the determinable property blue, while their dissimilarity

is accounted for by their respective determinate properties. But *a* and *b* resemble each other more closely than either of them resemble *c*. This higher degree of similarity can only be accounted for holding that in addition to possessing their determinate properties and the determinable blue, *a* and *b* also have in common the lower level determinable property navy.

This argument may be extended in a straightforward manner to deal with any level of determinate property which one cares to think about. What the argument shows is that if there are determinable colour properties, then we can determine *a priori* that objects which are coloured possess an infinite number of them. Similar arguments would show that objects must necessarily possess an infinite number of shape and extension properties, and probably volume and mass properties and any other sort of property which one cares to think of. For any empirically-minded philosopher who supposes that the determination of what properties a thing actually has is a matter for empirical investigation (this is the *a posteriori* principle which Armstrong wields to great effect; see II, 11), the conclusion that things are necessarily composed of infinite numbers of properties is surely a repugnant one.

There is a further difficulty with the postulation of determinable properties, one which I take to be of even greater consequence than the unsavoury conclusion that concrete particulars necessarily have as components infinite numbers of such properties. We have invoked on more than one occasion the principle that full-fledged membership in the causal order is a necessary mark of the real. Real properties must be capable of acting, in the sense that they may make a difference to the causal powers of things which possess them; and they must be capable of being acted upon. (In Section 4 of the second chapter it was noticed that Armstrong defends one half of this principle--namely, the half which states that real things must be capable of acting--but that he cannot uphold the other half, since universals do not admit of change.) It is difficult to see how determinable properties can comply with the principle that properties must be capable of acting and being acted upon. In what sense do determinable properties make a difference to the causal powers of a thing, over and above the causal powers which are due to its precisely determinate properties?

Moreover, determinables have a certain insulation from being acted upon. A change in determinable property *necessarily* involves a change in the underlying determinate property: while changes at the determinate level may take place independently of determinables, the converse is not the case. Determinable properties are second cousins once removed from the determinate properties which play a full causal role in affairs of the world. So far as the question of their objective existence is concerned, this is as good as saying that determinable properties cannot be constituents of the universe at all.

The second possible Realist analysis of resemblance, the one which Armstrong adopts (see II, 116-27), holds not that concrete particulars which resemble in respect of a property have a further property which is numerically identical in them, but rather that the resembling properties of things are themselves partially numerically identical. This theory presupposes that properties which resemble to the least degree are necessarily complex (i.e., composed of parts); the resemblance of the properties is then attributed to numerical identity of some of the parts, with the limiting case of exact resemblance being a matter of identity of all the parts. Armstrong first makes his case with regard to lengths. Lengths, he claims, are complex structural properties, and greater lengths contain lesser lengths as proper parts. Hence two lengths which resemble each other are partially identical in virtue of sharing some lengths as proper parts. Degrees of resemblance among lengths may be explained in terms of the possession of greater or lesser numbers of identical parts. (There may be a problem with this suggestion, since every length presumably has an infinite number of lesser lengths as proper parts, but I shall ignore this factor in what follows.)

Having made the argument with respect to lengths, Armstrong proceeds to extend it to cover the case of colours as well. He first points out that the fact that colours are epistemologically simple does not legislate against their being *in fact* complex. Colours may be ontologically complex properties with identical proper parts, and the partial identities holding among them might cause us to perceive their resemblance even though the colours themselves are perceived as simple. Armstrong concludes with:

> If we ask what in fact the colours are, the physicalist reductions of these properties to light-emissions of different wave-length promises to reproduce the required logical characteristics. The differing wave-lengths form a class of structural properties with a similar logical structure to the lengths, if more complex.(II, 126-7)

There seem to me to be three major problems with Armstrong's account. First, it is not at all clear that properties which resemble must be complex. Suppose that there are three types of fundamental particle in the universe. Let particles of type *a* have a certain mass, particles of type *b* twice this mass, and let particles of type *c* have three times the mass of *a*'s. Hence *a*'s resemble *b*'s more than *c*'s in respect of their mass. Can the masses of particles of type *a* be held to be complex structural properties. Perhaps they can; but there seems to be at least as good grounds for holding such masses to be simple, since they cannot in fact ever be resolved into finer masses. This objection is not conclusive, but the issue requires addressing.

Secondly, Armstrong's move from length properties to colours neglects a very important fact: colour resemblances do not correspond to the linear ordering of wavelengths in the way that length resemblances correspond to linear ordering of the lengths themselves. A length always resembles another which is greater than itself more that it resembles one which is greater than the second. This seems to be true of colours as well, *until* we reach the top of the visible spectrum. A redness resembles a yellowness more than it resembles a greenness, a greenness resembles a blueness more than it does a violetness; *but*, a violetness resembles a redness as much as it does a blueness. How is this fact to be explained on Armstrong's model? Whatever the ordering of partial identities holding among colours, it would seem that violet ought to resemble red less than any of the other colours do. I see no way in which this difficulty can be met.

Thirdly, and perhaps most importantly, it seems to me that Armstrong confuses wavelenths of light with the possession by an object of a colour property. The physicalist reduction of colours does not identify them with wavelengths of light; rather, the reduction is in terms of a micro-structure of the object which causes it to reflect or refract certain wavelengths of light. It is this micro-structure which is the true colour property of the object.

Hence, if colour resemblances are to be analysed in terms of partial identities, it must be in terms of partial identities in the micro-structures of the resembling objects. Perhaps this can be accomplished, but I think it unlikely. A certain piece of cloth and a patch of paint may reflect exactly the same wavelengths of light. But they are composed of completely different elements; can it really be supposed that they reflect the wavelenths which they do in virtue of partially identical micro-structures? Or again, a patch of sky may be exactly the same shade of blue as the cover of the book in front of me. The book's colour is due to a micro-structure which reflects certain wavelengths of light, while the sky's colour is due to refraction of the sun's rays by molecules in the atmosphere. Where is the common micro-structure in such an instance?

These considerations are enough, I think, to make the thesis that all resemblances can be analysed in terms of partial identities a dubious one. That things resemble in various respects, and that they resemble to varying degrees, cannot be doubted. Since the Realist program of reducing such resemblances to numerical identity, either of determinable property or of proper parts of the properties involved, is apparently fraught with difficulties, I conclude that the Nominalist has sufficient grounds for holding that qualitative similarity (even in the limiting case of exact resemblance) is an unanalysable fact concerning the world, and one which does not require the postulation of universals.

2. The Denial of "Properties":

There is a certain ambiguity involved with the term 'property'. At the beginning of Chapter III we noticed that Armstrong takes the Nominalist to be denying not simply the objectivity of universals, but the objectivity of properties altogether. The particularist account of Nominalism which has been developed here certainly does not deny the objectivity of determinate properties. The account does, however, deny the objectivity of determinable properties. I suggest that the ambiguity of the term 'property', as between determinates and determinables, is one of the reasons why Armstrong misinterprets the Nominalist program.

Let us adopt the following convention. We will continue to refer to the determinate characteristics of things as their properties. But where we wish to refer to determinables, we will enclose the term 'property' in scare-quotes. Thus, the book in front of me has a property of being a certain specific shade of blue; but it has the "property" of being blue.

In Chapter II above it was argued that the Nominalist does not attempt a reductive analysis of determinate properties. Rather, he holds that the particular determinate properties which things have must ultimately be accepted as a brute fact, not analysable in terms of universals, and certainly not in terms of their resemblances to other things. The Nominalist does, however, deny the objectivity of determinable "properties", and will wish to provide a reductive account of the latter.

The account proceeds by way of the resemblances which things with the same "property" bear to one another. There are things in the world with objective, particular, determinate properties. The determinate properties which things possess resemble each other to greater and lesser degrees; these resemblances determine natural classes, in the first place of resembling properties, and in the second place of concrete particulars. The class of blue things, for example, is a class each of whose members possesses a determinate property which belongs to a natural class of resembling properties. Notice that it is the determinate properties of concrete particulars which determine what natural classes they belong to, and not vice versa. Things do not have the determinate properties that they do in virtue of their resemblances to other things; rather, they bear the resemblances which they do to other things in virtue of the determinate properties which they possess. Given natural classes constituted by the resemblance of particular determinate properties, the Nominalist simply substitutes these classes for determinables. Hence, to say that something has the "property" blue is to say that it is a member of a class of things which possess a particular determinate property which in turn belongs to a certain class of resembling properties. In other words, *a* has the "property", *F*, if and only if *a* is a member of a class of things which suitably resemble each other (where 'suitably resemble each other' is an abbreviation for 'possess a property which is a member of a

natural class of resembling *F*nesses'.[52]

If we are not careful to keep explicitly before us the distinction between determinate and determinable properties--if we drop the scare-quotes from the term 'property' in the conclusion of the preceeding paragraph--then it may seem as though the Nominalist is attempting to hold that things have the determinate properties which they do in virtue of their resemblances to other things. And this is indeed what Armstrong takes the Nominalist to be doing. He claims that the Resemblance Nominalist is presenting a reductive account of what it is for a thing to have a determinate property: *a* has the property (*not* "property"), *F*, if and only if *a* suitably resembles a paradigm case (or paradigm cases) of an *F*.[53] Armstrong's independent existence and causal self-sufficiency objections, as raised against Resemblance Nominalism (see Section I of the previous chapter), rested on being able to remove through a thought-experiment all of the objects which a concrete particular resembles. According to Armstrong, the Resemblance Nominalist's account has the consequence that such a thought-experiment would strip away the concrete particular's determinate characteristics, leaving it a "bare" particular, a featureless something. Yet surely things have the determinate characteristics and causal powers which they do independently of the resemblances which they bear to other things; in the absence of such resemblances, they are not featureless bare particulars.

Has there ever been a Nominalist who defends Resemblance Nominalism as Armstrong interprets it? I do not know of one. At the very least, Price's Resemblance account--the

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[52]This conclusion may with some justification be viewed as a combination of Class and Resemblance Nominalism, and goes some way towards explaining why Armstrong does not know of anyone who explicitly defends a pure Class Nominalism. Pure Class Nominalism is open to the objection, which Armstrong raises against it (I, 38-41), that it is not just any and all heterogenous classes which will suffice in the analysis: ***resemblance*** classes are required. Class Nominalism, as Armstrong puts it, is indeed "a pervasive tendency...among those philosophers who are Nominalist in sympathy."(I, 15) For determinable properties are identified with classes. But the fundamentally important fact is that the Nominalist appeals not simply to classes, but to resemblance classes.

[53]The 'paradigm case' clause is included in the formula because Armstrong's critique is based on an account developed by H.H. Price, ***Thinking and Experience*** (London: Hutchinson & Co. Ltd., 1953), Ch. 1.

account on which Armstrong bases his critique of Resemblance Nominalism--does not seem to me to admit of the criticisms just mentioned. Briefly, Price replaces determinable properties with classes of objects grouped around certain paradigm concrete particulars, or "exemplars" as he calls them. The class of things with the "property" red, for example, is a class united by the resemblance of each of its members to, say, "a certain tomato, a certain brick and a certain British post-box."[54] That Price means his paradigm account to be an analysis of what it is for a thing to have a determinable property is clear from the way in which he introduces the account. After expounding a version of Immanent Realism, he spends some six pages explaining that the "Philosophy of Universals" seems inadequate to the task of dealing with less than exact resemblances among objects. The paradigm account of the "Philosophy of Resemblances" is then proferred as an account of how things which resemble to less than an exact degree in some respect may nevertheless all have the very same "property". Later on Price explicitly notes that the deficiencies in the Philosophy of Universals, the ones which require the Philosophy of Resemblances, may be overcome if concrete particulars can be held to have determinable properties. This shows, at any rate, that the primary concern of Price's Resemblance account is in dealing with determinables, and not determinates.

To suppose that Price considers concrete particulars, in the absence of the resemblances which they bear to certain exemplars, to be featureless bare particulars, is to make a mockery of his discussion. For Price holds that resemblances among particulars, and especially degrees of resemblance among particulars, are a fundamental and pervasive ontological fact. What is it about concrete particulars which underwrites their varying degrees of resemblance, if not their objective particular natures? If Price really held the position which Armstrong attributes to him, then the obvious objection to it would be that surely one bare particular resembles another just as much, and just as little, as any other bare particular does. The objection is so obvious, in fact, that to suppose that it would not have occured to Price is to offer a reading which is not merely unsympathetic, but which stretches imagination beyond the bounds of good

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[54]Ibid., p. 20. Price holds that a class may be united, within limits, by alternative sets of exemplars.

philosophic sense.

To be sure, Price never states that the determinate properties of things are objective in the sense that they are not reducible to resemblances among objects. At one point he even states to the contrary that determinate properties too are to be analysed in terms of resemblances.:

> [W]e shall define 'characteristic' in terms of resemblance, and not conversely. Where a number of objects do happen to resemble each other exactly in one respect or three or fifteen, there, ***and in consequence***, we shall be quite willing to say that they have one, or three, or fifteen 'characteristics in common'.[55]

But this passage is best taken, I suggest, as the Resemblance Nominalist's reduction of ***universal*** determinate properties, and is in fact the analysis which has been adopted throughout: to say that *a* and *b* have a precisely determinate property in common, to say that they are qualitatively identical in some respect, is simply to say that they resemble exactly in that respect, where the resemblance does not depend on a single entity (a universal) of which *a* and *b* are instantiations. It certainly does not follow from this that concrete particulars, in the absence of resemblances to other particulars, become featureless somethings.

The reason that Price never states that concrete particulars have objective determinate properties is simply that he is not a particularist, as the doctrine has been developed here. Rather than holding the view that it must be ultimately accepted as a brute fact that things have the determinate properties which they do, Price apparently opts for the Quinean version of the brute fact analysis which we discussed in Section 2 of Chapter III. The Quinean view, recall, denies that there are objective properties--even particular ones--which may be quantified over, but holds that things' ***natures*** are quite objective in a way that does not demand a reductive analysis in terms of universals, and which does not admit of the criticisms which Armstrong raises against the various versions of Nominalism which he discusses.

That Price adopts the Quinean version of the brute fact analysis of things' natures is apparent in his adoption of paradigm objects as a substitute for resemblance ***in a respect***. We have already taken notice of the difficulties presented to the Quinean in specifying how objects resemble in various respects. Refusal to quantify over properties leaves the Quinean with

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[55]Ibid., pp. 17-18, my emphasis.

nothing more than overall resemblance among ordinary particulars, which fails to capture the distinction between things resembling in respect of their colour, say, rather than in respect of their shape.

Price's exemplars are introduced as a means of dealing with this problem: resemblance of objects in respect of their blueness, for example, is replaced by a certain minimum degree of overall resemblance towards each of a group of exemplary blue objects. A minimum degree of resemblance to *each* of the exemplars must be specified in order to rule out determination of resemblances in the wrong respects. If a sufficient degree of resemblance towards only one of a group of exemplars is allowed to determine resemblance in a respect, then (supposing that a certain blue pen was among the exemplars for the class of blue things) we would be led to the conclusion that red pens resembled (non-paradigmatic) blue pens in the same respect in which the blue pens resembled patches of sky and denim blue-jeans.

The primary difficulty with the paradigm account of resemblance is that it accords to some concrete particulars--the paradigms or exemplars--a certain ontological primacy. Price acknowledges that, within limits, different groups of objects may serve as paradigms for a given resemblance class. But he insists that some group of paradigms is required to account for the unity of such a class; what's more, his contention is that paradigms are *ontologically* required to serve as class unifiers. The problem is simply this: On what grounds are some concrete particulars supposed to have an ontologically more basic status that others?

It might be supposed that some concrete particulars really do have a more fundamental status than others in constituting a given resemblance class. If it is the class of blue things which we are attempting to define, for example, then in order to adequately specify this class we must choose at least one paradigm concrete particular which reflects wavelengths from the bottom end of the blue spectrum, and at least one from the top of that spectrum. Given these paradigms, we can say that any object which resembles these two at least as much as they resemble each other is a member of the class of blue things. Any object which did not resemble these two at least as closely as they resemble each other (ignoring the problem of the two

resembling in quite extraneous respects, which perhaps may be overcome by sufficiently careful choice of paradigms) would necessarily fall outside the blue spectrum.

The supposed ontologically primacy of particulars from the outer limits of the blue spectrum, however, is due here to Price's own formulation of the resemblance constraints on class membership. I see no reason in principle why we could not choose exemplars from the middle of the blue spectrum, and relax the degree of resemblance required sufficiently to include all and only blue things. Or again, why not choose exemplars from slightly inside the limits of the blue spectrum, and hold that blue things are those which resemble the paradigms *almost* as much as they resemble themselves? The point is that no blue object is paradigmatic in itself, not even within certain limits. If the paradigm account will work at all, then any one of the objects of the class which the paradigms are meant to pick out will serve as a paradigm for the class, assuming that we formulate our resemblance constraints properly.

A further problem with Price's paradigm account of respects of resemblance is that this sort of resemblance is derivative. To say that two objects resemble in a respect is not to say that they have resembling properties, but rather that they have a certain degree of overall resemblance to some paradigms, which in turn have a certain degree of overall resemblance to themselves. This is objectionable on a number of scores.

First, there is the *prima facie* case to be made for holding that it is resemblances in a respect which are fundamental, and overall resemblances which are derivative. For we humans at least, judgements of similarity in a respect are a relatively easy matter, compared with the much more complex task of making judgements of overall similarity. If Price's account is correct, shouldn't this situation be reversed?

Secondly, isn't it clear that the resemblance of non-paradigms in a respect is *not* parasitic on their overall resemblances to other objects. It seems possible, at least, that we could make judgements concerning the similarity of objects in various respects, even in the absence of familiarity with appropriate paradigms. If resemblances in a respect are dependent in turn upon overall resemblances to paradigms, this should presumably not be a possibility.

Finally, note that we commonly render judgements concerning *degrees* of resemblance in a respect among objects--*a* resembles *b* more than *c* in respect of their colours, for example. If determination of the respect of resemblance depends upon comparisons of degrees of overall resemblance of the objects in question to certain paradigms, what accounts for the ability to judge degrees of similarity in a respect?

Price's exemplars may well be indispensable epistemologically. That is, paradigms may serve to account for how we actually determine whether or not a given thing falls into this "property" class or that one. The paradigm view seems to accord well with the view that, in learning the meaning of a word, we are shown a few examples of its application, and then proceed to judge other situations on the basis of these examples. But even if paradigms are the most fundamental pieces of our epistemological furniture, that is no good reason to import them into the ontological realm. For my own part, I simply can't see any justification for holding that some concrete particulars have a priveleged ontological status. This is doubly the case, since the program of reducing resemblances in various respects to overall resemblances towards ontologically priveleged objects seems to lie at odds with the ordinary judgements of resemblance in a respect which we can and do make.

The particularist version of the brute fact analysis of things' natures does not seem to me to fall prey to any of the difficulties which befall Price's version of Resemblance Nominalism. To say that *a* and *b* resemble in a respect is simply to say that *a* has a particular property *f*, and *b* has a particular property *g*, and *f* and *g* resemble each other. To say that *a* resembles *b* more than *c* in a respect is to say that *c* has a particular property *h*, and *f* resembles *g* more than it does *h*. The particularist does not accord a special ontological status to certain concrete particulars, or to certain particular properties. Moreover, the particularist analysis accords well with the comparative ease with which we make judgements of similarity in a respect, as compared to complex judgements of overall similarity.

I conclude that Price's account of Resemblance Nominalism suffers from certain defects. The defects are not, however, the ones which Armstrong attributes to the doctrine.

Price does not take the natures of concrete particulars to be analysable in terms of their resemblances to other particulars; rather, the resemblances of things to each other depends upon their objective natures. Given such resemblances, things' determinable "properties" may be accounted for in terms of their resemblances to each other.

Price's difficulties follow from his refusal to quantify over the various aspects of a thing's nature, leaving him with nothing more than overall resemblances among concrete particulars. Such overall resemblances, I contend, are simply inadequate to the task of providing an accurate description of the world. The remedy is not Realism, but a particularized Nominalism.

3. The Resemblance Regress:

In rounding out the discussion of resemblance, I wish to consider briefly Russell's famous objection to Resemblance Nominalism.:

> If we wish to avoid the universals *whiteness* and *triangularity*, we shall choose some particular patch of white or some particular triangle, and say that anything is white or a triangle if it has the right sort of resemblance to our chosen particular. But then the resemblance required will have to be a universal. Since there are many white things, the resemblance must hold between many pairs of particular white things; and this is the characteristic of a universal. It will be useless to say that there is a different resemblance for each pair, for then we shall have to say that these resemblances resemble each other, and thus at last we shall be forced to admit resemblance as a universal. The relation of resemblance, therefore, must be a true universal. And having been forced to admit this universal, we find that it is no longer worth while to invent difficult and unplausible theories to avoid the admission of such universals as whiteness and triangularity.[56]

Russell is apparently criticizing the paradigm account of Resemblance Nominalism which we rejected in the previous section. But the criticism would seem to apply equally well to a non-paradigmatic particularist version of Resemblance Nominalism. I have been arguing, firstly, that concrete particulars may resemble exactly in some respect (i.e., they may have exactly resembling particular properties), without thereby requiring the postulation of a universal entity which underwrites their resemblance; and secondly, that determinables such as whiteness and triangularity can be analysed in terms of the less than exact resemblances holding

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[56] *Problems of Philosophy*, p. 55.

among the members of the classes of things which all have these "properties". It would indeed be disturbing to discover at this point that resemblance itself had to be admitted as a universal, on pain of an infinite regress of resemblance relations.

In the first section of Chapter III we noticed that Armstrong raises Russell's regress against Resemblance Nominalism. He concludes that the regress is a logically vicious one, since he takes the Resemblance Nominalist to be providing a reductive account of what it is for a thing to have the determinate properties and relations which it does in terms of its resemblances to other things. Under such circumstances, the regress does indeed appear to be vicious: in this case, an infinite regress of resemblance relations apparently never "bottoms out", so to speak; we can never arrive at any fundamental ontological facts concerning the universe. I think enough has been said to this point to convince the reader that Armstrong is mistaken in his reading of Nominalism in general, and of Resemblance Nominalism in particular. The Nominalist will accept that things have the determinate nature which they do as a brute fact (though various Nominalists may differ as to whether properties, even particularized ones, ought to be quantified over). If this is so, then I don't think that Russell's regress can be held to be logically vicious. It seems open to the Nominalist to hold, at least, that the resemblances holding between resemblance situations are of successively higher order, and that there is nothing logically at fault with such higher-order resemblances as long as they are grounded in the fundamental, objective natures of things.

Few Nominalists could be happy with this reply (though Price suggests it briefly).[57] The Nominalist is essentially conservative in his ontic committments (else why would he deny the existence of universals in the first place?). He will not be pleased, then, with the prospect of accepting an infinite hierarchy of resemblance relations in exchange for universals. As Armstrong would put the point, if Russell's regress is not logically vicious, allowing an infinite regress of higher-order resemblances is economically vicious, which from the standpoint of Nominalism is practically as bad.

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[57] *Thinking and Experience*, p. 25.

A more appropriate reply to the resemblance regress is one which Armstrong himself adopts on his own behalf. He points out that resemblance is an internal relation, as opposed to external relations such as 'side by side with' or 'on top of', and goes on to propose a *reductive principle for internal relations*:

> If two or more particulars are internally related, then the relation is nothing more than the possession by the particulars of the properties which necessitate the relation.(II, 86)

The point here is that the resemblance of two particulars in a respect is dependent on the determinate properties of those particulars in a way in which external relations are not. On the principle that objective entities must have causal efficacy, internal relations must be rejected. As Armstrong goes on to put the matter:

> there seems to be no reason to attribute causal efficacy to [relations of resemblance]. For instance, a sorting machine which detects resemblance in a certain respect is simply "moved" by the properties of the objects in virtue of which the objects resemble each other. It is, of course, important that the objects all have the same sort of effect upon the machine. But the "relation of similarity" is detected *via* the effects of individual particulars, acting in virtue of their properties. By contrast, if *a* precedes *b*, the fact that this relation obtains may make its own causal contribution over and above the properties of *a* and *b*.(Ibid.)

In other words, while determinate external relations have their own causal efficacy and must therefore be accounted the status of 'pieces of furniture of the world', internal relations do not warrant such treatment. There is not, so far as things in the world go, objects with their determinate properties *and* the resemblances holding between the latter. Such resemblances are are objective enough, in the usual philosophic sense that they are independent of minds and linguistic constructions. But in the sense in which we have been using 'objective' to this point, that things are objective iff they are not only mind- and language-independent, but also are not reducible to things of another ontological type, resemblances are not objective at all. For resemblances are completely dependent on the determinate properties and external relations which things possess, and are reducible to such.

Armstrong raises Russell's regress against Resemblance Nominalism, and does not offer instead a defense in terms of his own reductive principle for internal relations, simply because he takes the Resemblance Nominalist to be denying the objectivity of determinate properties

and relations, and attempting to analyse these in terms of the resemblances holding among things. If this were indeed the case, then resemblances could not in turn be analysed in terms of properties and relations; resemblances would have to be taken to be the fundamental building blocks of the universe, and then Russell's regress is of course off and running.

The reply to Russell's famous objection to Resemblance Nominalism, then, is simply this: There are things in the world with objective, determinate, non-universal properties and (external) relations. The properties and relations of things resemble each other in varying degrees. To say that things are qualitatively identical in some respect is to say that they have precisely resembling properties; to say that they have a determinable "property" in common is to say that they are members of a class of things which resemble each other to less than a precise degree in some respect. The resemblance holding among things is thus a fundamentally important fact concerning the universe; for without it, all language and thought would be impossible. But resemblance is not some additional entity in the world, over and above the properties and relations of things, which may viciously multiply behind backs. In the end there are only things with their particular determinate properties and relations.

V. CONCLUSION: NOMINALISM RECONSIDERED

Armstrong claims at one point that Quine's misuse of terms such as 'abstract' and 'concrete', 'particular' and 'universal', and 'Nominalist' and 'Platonist', has "contributed to muddling a whole philosophical generation about the Problem of Universals."[58] If this is true, then it is no less the case that Armstrong's misuse of 'Nominalist' has at least as much potential to mislead.

In Chapter II we reviewed briefly some of the reasons why contemporary philosophers have associated Nominalism with the rejection of classes. Much of this is indeed attributable to Quine and Goodman's historically divergent usage. They begin "Steps Toward a Constructive Nominalism" with a rejection of "abstract entities", including classes. Quine goes on to claim that the philosopher cannot get by without classes and eternal open sentences, and so abandons "Nominalism" in favour of a full-blown "Realism" of "abstract universals". Quine's identification of universals with abstract entities, his identification of Nominalism with the rejection of such "universals", and his lack of provision for an adequate characterization of the latter, simply leaves the Nominalist hanging in mid-air, with no firm ground to stand on in attacking the problem of universals, or any other problem.

Goodman, on the other hand, finally rejects the association of Nominalism with abstract entities in general, and focuses simply on the rejection of classes as "one reasonable formulation of the traditional injunction against undue multiplication of entities." A reasonable formulaton, perhaps; but hardly one which is in keeping with historical usage. The application of Ockham's razor is indeed an integral part of the Nominalist's program. But it is not the only part, and most Nominalists past and present would reject Goodman's characterization.

Where Armstrong runs astray is not so easy to discover. His initial characterization of Nominalism is at least accurate: it is the doctrine which denies that there are universal entities, either entities which exist in a transcendent realm of being and underwrite qualitative similarity,

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[58] "Against 'Ostrich' Nominalism", p. 448-9, n. 3.

or entities which exist in space-time at multiple locations, and constitute qualitative similarity through being numerically identical in all of their instances. Somewhere along the line, however, Armstrong's construal of Nominalism changes from the denial of universals to the denial of objective natures *simpliciter*. He discusses under the explicit heading of Nominalism five doctrines all of which implausibly deny the objectivity of things' natures, and which cannot be plausibly attributed to any Nominalist that I know of, either past or present.

Part of Armstrong's mistake lies, I think, in misreading the very Quinean program which he heaps so much scorn upon. In Chapter III we noticed that the Quinean, insofar as he in Nominalistically inclined, does not deny the objectivity of things' natures. That things have the natures which they do he ultimately accepts as a brute fact concerning the world. The Quinean does, however, deny the objectivity of properties, to the extent that the thinks he can get by without quantifying over them. The success of the Quinean program to the side, Armstrong's failure to note the distinction here between properties and natures is I think part of what leads him to suppose that the Nominalist denies the objectivity of things' natures altogether.

Another part is the failure to note the distinction between the rejection of determinable and determinate properties, as pointed out in our discussion of Price in the previous chapter, even though Armstrong is so careful to distinguish between the two on his on behalf. All Nominalists have been concerned to deny the objectivity of determinable "properties", and the various versions of Nominalism which Armstrong discusses are most plausibly viewed as reductions of these latter. Predicate and Concept Nominalism, for example, hold that determinable properties are parasitic upon the application of the same predicate or concept to concrete particulars which are in themselves obviously qualitatively distinct. Class Nominalism holds that to attribute a determinable property to a thing is to attribute to it membership in a certain class of things. These variations of Nominalism are sides of the same coin--predicates and concepts apply to the members of the class which the Class Nominalist invokes--and ultimately they collapse into Resemblance Nominalism. For in the final analysis predicates and

concepts are applicable to various distinct concrete particulars in virtue of their similarities; such concrete particulars all belong to a *resemblance* class.

The final reason that Armstrong confuses Nominalism with the rejection of objective natures, I think, and not simply with the rejection of universals, is that the term itself sometimes misleads with regard to the resulting doctrine. Nominalism is *not* the doctrine that things have their natures solely in virtue of the names we apply to them. This is the extreme position which we rejected with Woozley in the introductory chapter; it is Armstrong's interpretaton of Predicate Nominalism, which he claims the term 'Nominalism' is sometimes restricted to.(I, 14) Perhaps it is. But only mistakenly. The roots of Nominalism lie in its contention that only names are general, the things to which names apply being particular in all their respects.

I have argued that the position which follows most naturally from the Nominalist's rejection of universals, and the one which is most defensible, is particularism. There is no room here to argue at length that the great historical Nominalists were particularists. But a few quick suggestions may be in order.

Ernest A. Moody has the following to say concerning William of Ockham's Nominalism.:

> From a logical point of view, Ockham's analysis is a restriction of the domain of reference of terms, or of the domain of objects constituting possible values of the variable of quantification, to individual substances and singular (*not* common) sensible qualities. Ontologically, this means that the only things that there are, are individual substances and equally individual qualities.[59]

Moody leaves little room for doubt that Ockham was a particularist.

Hobbes too was a particularist. He states that the name "*man* denotes any one of a multitude of men, and a *philosopher*, any one of many philosophers, by reason of their similitude...."[60] He goes on to claim that such common names are "universal names", but that "this word *universal* is never the name of any thing existent in nature,...but always the name of

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[59]Ernest A. Moody, "William of Ockham" in *The Encyclopedia of Philosophy*, Volume 8, p. 311.
[60]Thomas Hobbes, *Body, Man, and Citizen: Selections from Thomas Hobbes*, ed. by Richard S. Peters (New York: Collier Books, 1962), p. 36.

some word or name."[61] More importantly, Hobbes speaks often of the "accidents" (i.e., properties) which are "in" things, and in virtue of which universal names apply to them.:

> But it is manifest, that all other accidents besides magnitude or extension may be generated and destroyed [Hobbes is here attempting to distinguish between properties which fall under some equivalent of the law of conservation of mass, and those which don't]; as when a white thing is made black, the whiteness that was in it perisheth, and the blackness that was not in it in now generated....[62]

If this is not a particularist doctrine, I don't see what it could be.

I will let Armstrong himself speak on the likelihood of Locke being a particularist. In his book Armstrong writes:

> [O]f course, Locke is a Nominalist. Hence when he speaks of the substratum supporting properties, he cannot in consistency think of these properties as universals. I have no evidence that he ever considered the matter, but his properties ought to be particularized or Stoutian properties.(I, 103)

By the time Armstrong formulated his reply to Devitt, however, he seems to have modified his view somewhat: he states that "Locke is a probable example" of a philosopher who viewed properties as particulars.[63] Williams goes one step further, stating that "the simple ideas and sensible modes of Locke, since they certainly are not concreta though energetically denied to be universals, must be, if sooth were said, abstract particulars."[64]

These brief considerations should be enough to suggest that there are good historical precedents for the particularist version of Nominalism which has been forwarded here. Why so many contemporary philosophers have misplaced Nominalism along the way may remain the most enduring puzzle of all. But Stout, at any rate, seems to have kept the matter straight. He states that "The position that characters are as particular as the concrete things or individuals which they characterise is common to me and the nominalists."[65]

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[61]Ibid., p. 37.
[62]Ibid., p. 112.
[63]"Against 'Ostrich' Nominalism", p. 446.
[64]"On The Elements of Being: II", p. 190. Williams appends the following note:
> Such, for example, must be "the coldness and hardness which a man feels in a piece of ice"(Essay Concerning Human Understanding, Book II, Chap. ii, Sect. 1), and so on for the "sensible qualities" so much affected by all who profess to combine empiricism with nominalism.

[65]"The Nature of Universals and Propositions", p. 154. Stout goes on to say he differs from the Nominalists:
> in maintaining that the distributive unity of a class or kind is an an

Ultimately, of course, the question of what Nominalism "really" amounts to is a question concerning the wisdom of applying the name to various doctrines. 'Nominalism' has this much in common with other names: it may be applied to a variety of doctrines which resemble each other in various respects. The wisdom of applying it to doctrines which diverge too widely, as contemporary philosophy is wont to do, strikes me as dubious. The practice of "name-stretching", in the case of terms with an established philosophic usage, inevitably leads to confusion, the current result being that when a philosopher is nowdays referred to as a Nominalist one really has very little idea what this might amount to.

In Armstrong's case, we can go farther than this. His various construals of Nominalism not only have little in common with the classical usage of the term; they seem also not to apply to anyone who might be termed a contemporary Nominalist. If the point were only to create a new usage of the word, and present a new doctrine, then the sole criticism would be that he ought to have invented a new name for the doctrine, rather than borrowing one with an established usage, so as not to further confuse the issue. But Armstrong purports to present a *refutation* of Nominalism. As far as I can tell it is not a refutation of a position held by a contemporary philosopher. Nor is it a refutation of particularism, the doctrine which (i) I have argued follows most naturally from Nominalistic reasonings, (ii) which seems to me to be the most defensible form of Nominalism, and (iii) which is most in accord with the views of the classical Nominalists. On all of these grounds, surely this latter theory is the version of Nominalism which the Realist must deal with at the outset.

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[65](cont'd) ultimate and unanalysable type of unity. The nominalists, on the contrary, say that it can be explained through the relation of resemblance. Stout's notion of distributive unity is apparently based on the view that the meaning of words such as "'all', 'every', 'any', 'some', and the indefinite article" cannot be defined in terms of resemblance, yet they are required for specification of resemblance classes. Williams states that his version of particularism is "almost identical" with Stout's, the sole major difference being Stout's "obscure idea of the class as a unique form of unity not reducible to similarity."("On The Elements of Being: I", p. 12).

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